THE BUILDER

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OUR SCHOOLS OF ARCHITECTURE.

UNLESS we assume that an architect is a divinely appointed genius who will make his mark and cut his way irrespective of, and indifferent to, any obstacles which lie before him, the question of the right principles of education and the methods by which it can best be effected is a most material and important one. Unfortunately, however, we know that we can at any one time have few men of genius, and it results that the average work throughout the country, the work by which posterity will judge us, will be that of the average man and not that of the man of exceptional talent. Great as is the delight given to those who have eyes to see and minds to understand and appreciate the great works of outstanding merit which are from time to time built, the factor which makes most for human progress and happiness will always be the general merit of the average work which surrounds us and which we see from day to day.

And it is here that the work of the architectural schools is of the first importance, since the executive ability of an average man in any calling is largely the result of his training and environment. The old haphazard system of pupilage produced the men who are generally responsible for the dullness and vulgarity of our modern towns of the Victorian epoch, the weary areas in which we often search in vain for a sign that architects had any right or title to practise their art or any knowledge of the nature of that art. The architect of the last sixty or seventy years was too often a man who would be more fittingly described as an amateur, and would have been so described unless he had to deal with those who were a little more ignorant than himself. Teaching in the true sense of the word was non-existent; the pupil acquired a perfunctory and rule-of-thumb knowledge of the way in which buildings were erected sufficient to satisfy the commonplace practical requirements, and that was all. The public were profoundly apathetic, and the degradation of a great calling is amply illustrated by the couplet, "And if your son of dullness you suspect, a parson make him or an architect."

While law and engineering, science, and other activities of human life were being developed step by step on organised and logical lines, architecture was regarded as but an adjunct of building, a calling which had few attractions; the architect was in fact an adventurer in that field of building which, unlike engineering, required neither exact science nor knowledge. The great works of the past were regarded with interest by antiquarians and those of a romantic or poetical turn of mind, but were for the most part looked upon as being utterly divorced and divided from the work which might be produced in the present. It is true that in the latter part of what we may veritably describe as the "Dark Ages," the period of revivals, more evidence of vitality and popular interest in architectural possibilities was manifested, but in the main the same deterrent influence was at work, the conviction that in architecture, unlike other great callings, strenuous preparation and consistent thought were unnecessary, and a perfunctory and haphazard knowledge of office routine was sufficient preparation for a life's work.

The initial mistake was made by the failure to recognise the changes, which were more and more insistently necessary when the wedge of industrial development had separated executive ability from the directing thought which had previously been associated with the worker, and when building lost the pre eminent position it had occupied among the occupations of the people of the land. It is from the gradual recognition of the idea that pupilage alone afforded an inadequate training and preparation for the architect that the school movement has arisen.

The Architectural Association will always deserve a warm recognition of those interested in architectural education for the consistent enthusiasm with which its successive Councils have worked to provide educational facilities, in which pupils and assistants could supplement the experience they gain in offices. For years its efforts depended almost entirely on more or less voluntary help given by the leaders of the profession in their leisure hours, and for a long period it pursued a great work in promoting and directing architectural enthusiasm among the younger members of the profession, and in promoting that spirit of camaraderie and *esprit de corps* which is so valuable in all great callings. It is only of recent years that a great increase in the number of its members and an improvement in the funds at its disposal have enabled it to take up the subject of teaching in an organised and thorough manner, and by the foundation of a great Day School to occupy its present position among the schools of architecture.

The other means of architectural education were, in the main, the Academy School, which has done a great and useful work in the past, and the teaching of architecture at the various schools connected with South Kensington, in which the academic tendency has been in the past too marked a feature, and in which architecture has been regarded rather in the light of part of the mental equipment necessary for art masters than as an independent training for purely architectural students. The making of a small number of mechanical, perfectly-executed drawings of detail was for many years a characteristic of the South Kensington system, but in the able hands of Professor Beresford Pite we may trust that these and other defective features of the system will be finally eliminated.

The modern Universities of Liverpool, Manchester, and Sheffield, among others, and the older University of Oxford have recognised architecture as a subject of University education, and it is among these new educational factors that we look for that development in the future of architectural method and thought which will enable the student to master the principles which must lie behind all really successful architectural design if we are to have a real improvement in the quality of architectural design which will permeate and count as a factor in this century.

The belief that there is behind the methods of architectural training as given in France a system which largely accounts for the excellence of French design has led to the establishment of an Atelier in London on similar lines, and we shall look with great interest on the results of the efforts which are being made by the men who have promoted the movement here.

The illustrations in our present issue deal with the work of only four of our schools—that of the Architectural Association, the Architectural Schools in connection with the Universities of Liverpool and Manchester, and the Atelier formed last February—while in the text an account is given of the course of training now afforded by University College in London; but if the reception of this issue is such as to convince us that the profession is genuinely interested in the methods now in operation for the training of those who wish to enter its ranks we hope in the near future to give other and fuller issues, in which accounts will be given of the work now being carried out in other centres of architectural training in England, Scotland, and Ireland, and we might also devote numbers to a review of the students' works in France.

A journal can only indicate from time to time the direction in which it is considered that the interests of architecture lie,

and it is necessary that our readers should keep us informed by criticism or otherwise as to whether their opinions coincide with our own, as it is of paramount importance if we are to exercise a useful influence that we should, from time to time, have indications as to whether the bulk of our readers consider we are giving them the material which is of greatest value to them.

A feature of this issue is the illustrated descriptions of the work of the schools, which contain the views of those in authority who direct the system of training at each centre, and we believe that these articles will be found to be of the greatest value and help to those who are thinking of taking up the calling of architecture, inasmuch as they clearly set out the initial principles on which the teaching at the various schools is based.

Mr. Robert Atkinson, in writing of the objects aimed at in the Architectural Association School, says it teaches a man how to win a reputation, helps him to become a man of weight, teaches him the rudiments of design and construction, but does not and cannot teach a man tact or professional routine. Again, the student at the School reverses the order of the one-time learning. Instead of having to find out for himself what is good, and why, he is led to good examples, nothing but gems are offered to his ken; he begins at the end, as it were, and, without knowing it, is made familiar with treasures; the corn is winnowed before it reaches him. The student is kept to academic design; he can blossom into Neo-Grec or L'Art Nouveau afterwards if he likes, and they will both be better for a good foundation. Mr. Atkinson goes on to say, "Books are the architect's brains; he lives by his books, his knowledge is measured by his well-thumbed library. . . . The modern student has every good building at his finger-ends; he knows where to find materials and ideas for all his requirements, and he is trained not to misuse them. He is a student only so long as he needs to seek knowledge; when he can dispense with books he is an architect fully fledged (the books are there, he is not conscious of them, that is the difference)." He has begun to evolve, and that is genius.

We think these views are very sound, as we often find that it is not the men who are best acquainted with the work of the past who slavishly imitate, but the men who are hampered by the want of ease produced by insufficient knowledge, who take refuge in more or less direct imitation in order to keep on safe ground. As we are truly told, there is nothing new under the sun, and what frequently strikes us as originality can often be traced back to the accurate recollection of something which most of us are unfamiliar with; the simile that architecture is like speech, a matter of the arrangement of words with which we are all familiar in certain context, and not a question of the words themselves, cannot be too strongly insisted on.

And as we cannot express our ideas freely in our unfamiliar language, so will the architect always be hampered by a want of knowledge of the works of the past, which are his means of acquiring a knowledge of language. All else depends on the fluidity and ease with which he expresses his meaning in the terms he has acquired from study.

Professor Reilly has sent us an extremely able and convincing exposition of the methods of the Liverpool School, prefaced by an apology to the effect that it is not a very decent proceeding on his part to write about the work of the Liverpool School, which he directs, a suggestion which we think he need not have made, seeing he is but giving us what we have asked for. He proceeds, however, to write about the objective which his School has set before it, and does so both eloquently and clearly. He says, "A school of architecture should aim at being a school of thought in the finer sense of the term. It should represent a compact body of opinion and practice. It should strive to produce a consistent philosophy of the art it teaches in order that the student may find therein principles sufficiently wide and true to enable him to approach with confidence any problem, from town planning to furniture design, that architecture may present. If this should be the ideal of any school of architecture it is particularly incumbent on one like the Liverpool School, which is an integral part of a University. It is only by professing a definite faith which will ultimately have an effect far beyond its actual students that a school devoted to a practical art can be properly conceived as part of a University faculty. It is the main distinction between a University and a school, however good, that, while both are actively engaged in the diffusion of knowledge, it is part of the function of the former to extend in every direction the scope of knowledge itself. It will be seen, therefore, that the attitude taken up by the Liverpool School, which from its positive nature often and rightly evokes criticism, is inherent to its status."

Professor Reilly goes on to explain that the different elements of playfulness in the various Renaissance styles are rigorously discarded in favour of native Greek and Roman work. To Professor Reilly's subsequent reference to the "provincial characteristics which are to be found in the work of the earlier masters like Wren and Inigo Jones" we are inclined to dissent, for, though it is true that the earlier work of the latter was transitional in type, we regard the great bulk of the works of Wren which have come down to us as representing a more adequate foundation on which to build up a fabric of architectural style at once dignified and suitable to our condition and times than that of any other period or type, and we are of opinion that some of the more strictly classical developments of later times are more alien in their nature to the conditions of our climate and wants than that of the work of the earlier period.

But this is only our standpoint, and in no way detracts from our appreciation of the excellent work which is being done by the Liverpool School—a work which is already producing a considerable effect on our architecture, particularly in the North of England. Whether we or Professor Reilly are right in our views matters little, if he is, as we feel, capable of training the students of his School to recognise and know the principles which should underlie all architectural expression.

Mr. Lanchester sends us an article on the First Atelier and the reasons which led to its foundation, which he considers need some explanation. He puts it that "The view has been frequently expressed that, if the existing schools were thought to have failed in recognising some of the needs of the architectural student, organisation of a propagandist movement would have been a wiser course. Such a view can only be held, however, in the absence of a sympathetic understanding of the real purposes of the Atelier, as a means of developing the faculties of its members in a way radically different from that of a class or school. Teaching, as usually understood, aims at the provision of a copious supply of information to be consumed and digested, if possible, by the recipient; and, as it is much easier to absorb a mass of facts than to deduce from them an organic philosophy, the majority of students under a rigid and definite curriculum tend to become mere receptacles with but little capacity for using the information they have stored up. The aim of the Atelier is not so much to impart information as to develop faculties, and for this purpose its more flexible organisation has been found by experience to be most efficient."

In the explanatory *précis* which was issued on the foundation of the Atelier it was stated that, "Although such progress has been made in building up schools to replace the pupilage system, it is generally recognised that, however excellent they may be in other respects, they fail in the logical and systematic teaching of those principles of design which are essential if a community of ideas and generally accepted standard of criticism so necessary to a vital school of architecture is to be maintained."

Mr. Lanchester goes on to state that the Atelier "is definitely at issue with unintelligent adaptation of traditional types of building to needs of an utterly different character; it is far less concerned with the exact mode of expression selected by the designer than with the fact that he shall express absolutely and completely in architectural terms the intention of the design he has conceived." A description of the practice of the Atelier follows, to which we refer our readers, and we shall watch with sympathy and interest the work produced by the Atelier method transplanted to English soil.

The article which Professor Dickie contributes on the Manchester School of Architecture is more descriptive of the actual work of the School than the methods which underlie it. Stress is laid on measuring and sketching of actual buildings, and we think wisely, for, though much information can be obtained from books, the knowledge obtained from measuring and sketching tends to impress the realities of building and design on the student as nothing else can.

We must refer our readers to the illustrations of this number for the actual work of the schools we have dealt with, which clearly show that the students' wants have been met as they never were in past days by the various schools to which we have referred.

Organised architectural education on sound and consistent lines is so new in this country that we consider it likely that some years must elapse before there is an absolute consensus of opinion as to which of the varying methods gives the best result, as in all cases the tree must be judged by its fruit, but we have to wait for the latter to ripen.

NOTES.

Vitality in Architecture.

UNDER this heading Mr. March Phillipps again returns to the fight against the modern architect and his methods, but again, we think, forgets that he is fighting, not the prejudice of the modern architect and his devotion to an academic school of art, but the conditions of modern life which have rendered the attainment of truth and excellence in architecture an infinitely more difficult thing than it has been in bygone ages. In his concluding sentence, in which he says that "half an architect's training shall consist of practical bricklaying, the rest will come of itself," he clearly shows the tendency of his belief, and, we believe, the impossibility of reconciling that belief with the conditions which obtain in modern life. If we had, as in the past, to make small additions to existing buildings to meet present needs, and to carry out those small additions slowly, we could conceive that Mr. Phillipps's criticisms would have greater meaning; but, on the other hand, we have to create *de nouveau* great towns or to add to them miles of suburbs in a few years; we have to expend in a few years' time sums of money on great building schemes which would in previous times have been spread over centuries and found employment for several generations of thinkers. St. Paul's Cathedral differed from most of the great ecclesiastical works here and abroad in the fact that its construction only occupied a span of thirty-five years, but if the Cathedral had to be built to-day we suppose its construction would occupy a period of ten years at the most. In these new circumstances preconceived systems and method have become of paramount importance. Time, as we know it, in matters of building has been shortened in much the same manner that space has been annihilated by the invention of steam and the introduction of motoring. And, again, we have to remember that the modern architect has had nothing to do with the obliteration of the old system under which trades were handed down from father to son for generations, and no love of art can in the long run stand against the natural and instinctive wish of man to better his condition. The workman, in common with mankind of which he is but a part, is more concerned about the welfare and material comfort of his family and himself than with more altruistic considerations. He never, even in the past, lived to create beauty, though previously in pursuing his primitive instincts under more favourable conditions his work was carried out under such conditions that he did create beauty. The resources of civilisation, the improved mechanical methods of the day, the division and classification of labour, modern political conditions, the ease of communication and the facility with which a man can change his habitat, coupled with his greater freedom from local considerations, are all factors telling heavily against a revival of art under conditions at all analogous with those of the Middle Ages. We are heartily in sympathy with any methods of education which will give workmen a greater interest in their employment, but we do not think that such methods can work any real revolution in these times. For good or evil—and in the sphere of architecture possibly for evil—the old order has changed, giving place to new, and, whether we like it or not, the modern necessity is one for greater direction from above, and that can, we hold, only be brought about by careful and more or less academic effort on the part of architects. The result may be an architecture which will be inferior in many ways to that of the past, but whether that is so or not it is the only architecture which can represent our century with truth.

British Arts and Crafts at Ghent.

WE are glad to record the fact that the French Government is taking a great interest in the exhibition of British Arts and Crafts at the Ghent Exhibition, and had bought several things out of it before the opening of the exhibition. The authorities of the Louvre also wish to hold an exhibition on the same lines at their Galleries next year. The present exhibition is stated to be, though not the largest, the choicest and best of the kind which has ever been got together. The work exhibited includes Mr. Henry Wilson's Temporary Church, in which are displayed various ecclesiastical works; a full-size model of Sir W. Goscombe John's tomb of Lord Salisbury; a wrought-iron lectern by Mr. Edward Spencer, of the Artificers' Guild; some beautiful lettering by Miss Phœbe Rennell; and two figures in bronze over the altar by Mr. Paul Cooper. Mr. Frank Brangwyn's board, reading, and writing rooms for the London Chamber of Commerce in Belgium are among the objects exhibited; and a section is given up to the furniture of Mr. Ernest Gimson; while Morris is represented, as well as Messrs. Voysey, Turnbull, and Stockdale. The fine printing now being produced by many English houses forms another feature in an interesting exhibition of what is being done in this country. British pottery is also fully represented, and has, it is said, had a great vogue on the Continent ever since the Brussels Exhibition. We are very glad that this section of modern English design should be so fully illustrated at Ghent, as it is, we believe, in this section of work that we have a clear lead over contemporary foreign art. Just as the Continent can give us lessons in designing in a grand manner, so can our artists and craftsman show most continental nations how individual and charming the design of smaller objects can be made, a movement which was initiated in the days of the æsthetic craze, but which has since broadened, ripened, and freed itself of much of its early self-consciousness and inclination to degenerate into mere quaintness and eccentricity—qualities which are now most strongly marked in modern German design. The progress of art must be aided by the internationalisation of the best efforts of workers in all countries.

"Pseudo Neo-Grec."

IN its issue of the 20th inst. *Punch* has a good-humoured hit at the foibles and failings of the modern architect, who, in his preference for a certain type of architectural expression, finds it necessary to refuse to give his client what he wants at a cost which will meet his wishes. A hit at the appearance of the architect's office in Gray's Inn and the obvious wish of the architect to get away for his summer holiday is introduced; the unwillingness of the architect to give his clients bay-windows, oak beams, or indeed anything he requires, follows, and the climax is reached and the curtain goes down when the client, who has stated the sum he is willing to spend is five thousand pounds, is told by wire that the proposed house will cost from twelve to fourteen thousand pounds. It is the old traditional picture of the profession, now a little out of date, for if we have not arrived at the happy stage represented by the architect in the "Rise and Fall of Silas Lapham," who knows, according to the wonder of his client's wife, better what she wants in a kitchen than she does herself, we have, thanks to education, travelled far in the direction of knowledge of the wants and wishes of the ordinary man in the street. The client has, indeed, in many cases to be driven into the straight and narrow way of common sense by his architect instead of into the beguiling fields of romantic fancy which lie to either side of that path. Nor does the modern architect with frequency in these days presume to think he can induce his unfortunate client to treble a proposed expenditure. However, we suppose that illusions will always be dear to the public, and the architect, who is the instrument by means of which the public spends money, cannot altogether escape the occasional odium which belongs to the position. In very many cases a client is unwise in expending money he can ill afford on building, and the architect gets the blame as if he were, in truth, the instigator instead of the instrument of the deed. One of the axioms of ordinary life must always be that it is far sweeter and more congenial to blame others than to admit one's own fault, and it is on this basis that much of the abuse of the architect is based. But it has been said of people who say they "only want Justice" that they are asking not a little, but a great deal—a contention we heartily agree with!

Thatched Roofs.

IN a letter to the *Standard* of August 19 a correspondent, who has recently visited Devonshire, pleads for the use of thatch instead of corrugated-iron in rural districts, and says how completely the beauty of many otherwise lovely villages has been ruined by the use of corrugated-iron. He adds that there is one important consideration which militates against the use of thatch, which is that insurance companies will not insure thatched buildings—presumably at the same premium as others which are roofed with incombustible materials. We may add that there is another and even stronger reason which tells against thatch, which is that it is an expensive roofing material and that in some districts it is difficult to find men who have sufficient experience to carry it out well. The real alternative does not seem to us to lie between thatch, which we may almost regard as an obsolete material for roofing, and galvanised-iron, which we agree is a material which no one would willingly use for permanent buildings on account of its appearance. Slates or tiles, on the other hand, are obtainable in almost every part of the British Isles, and have none of the disadvantages attaching to thatch. The Delabole slating of Devonshire and Cornwall and many of the local slates of Wales and the North of England are pleasing in colour and texture, and are usually in perfect keeping with the local environment in which they occur. As for thatch, however, we are afraid that, like the portcullis and battlement, it is rapidly becoming a relic of a past condition, and must be regarded in modern use as more or less of an anachronism.

A Hanging Offence.

WE learn from America that a new terror is to be introduced into the building world in the shape of a hanging seven-story building! The *raison d'être* of this new outrage is as follows:—The managers of the New York Consolidated Gas Company considered that the twelve-story buildings on their site would meet their requirements, but subsequently discovered they would have to build on both sides of the twelve-story block, and build higher. Blocks of nineteen stories in height were accordingly erected, and the company then decided to add seven stories to the centre block in order to bring it up to a uniform level with the others, but, finding the foundations would not sustain the weight it was proposed to add, the managers have decided to hang a seven-story building from a 320-ft. trapeze connecting the side blocks. No extra weight will rest on the centre building, the seven new stories being entirely hung from above. It is stated that the new building will be the first of its kind, and we hope may remain so for an indefinite period! We have the greatest admiration and respect for American invention, but we confess to a wish that it were exercised in another direction. A vision of the buildings of a city of the future largely depending from gigantic steel trapezes is not one which we can contemplate with unmixed pleasure or satisfaction!

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FORTY-FOURTH ANNUAL EXCURSION:
ROUEN AND DISTRICT.

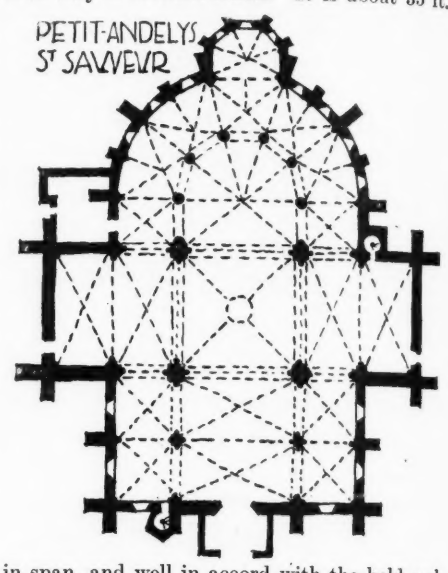
THE following is our report of the proceedings of the last two days of the Forty-fourth Annual Excursion of the Architectural Association, to Rouen and District. For an account of the previous days' proceedings see our last issue.

Fifth Day—Friday.

The unwelcome discovery having been made that Dieppe Races were on, the arrangements for this day had to be entirely changed, and the pleasure of a visit to the Manoir d'Ango, where the "Medici of Dieppe" entertained Francis I., had to be foregone. In substitution it was decided to visit Les Andelys, where it was hoped that the festivities of the Assumption would not take too rampant a form. The weather on this occasion proved unkind, and the start was made in an unpromising drizzle, which persisted for a great part of the day. Les Andelys are, of course, well known (thanks to Mr. Pennell and others) as an artist's paradise, but their strictly architectural interest is almost confined to the two churches, the ruins of Château Gaillard, and the Hôtel du Grand-Cerf. The church of Notre-Dame at Grand Andelys was first visited. One gets rather critical of churches in France, where buildings of cathedral scale are met with in such prodigious numbers; and, apart from the extremely fine east end (which gave one a pleased feeling that the English square chancel is not without its good points), this one proved in the mass more interesting than beautiful. It has a thirteenth-century nave, with later triforium and clerestory, a really lovely curvilinear rose window in the south transept, a series of sixteenth-century chapels along the south aisle with contemporary glass, and an extraordinary Henri II. façade to the north transept and aisles with other curious and unbeautiful detail of the same epoch at the tower piers and adjoining arches. At the west end is an organ and gallery, dated 1573, but with a suspicious air of newness. Amid all this fretfulness the dignified effect of the simple square eastern termination with its extremely lofty four-light window of geometrical design, equal to the best work of its period at Lincoln, was most telling.

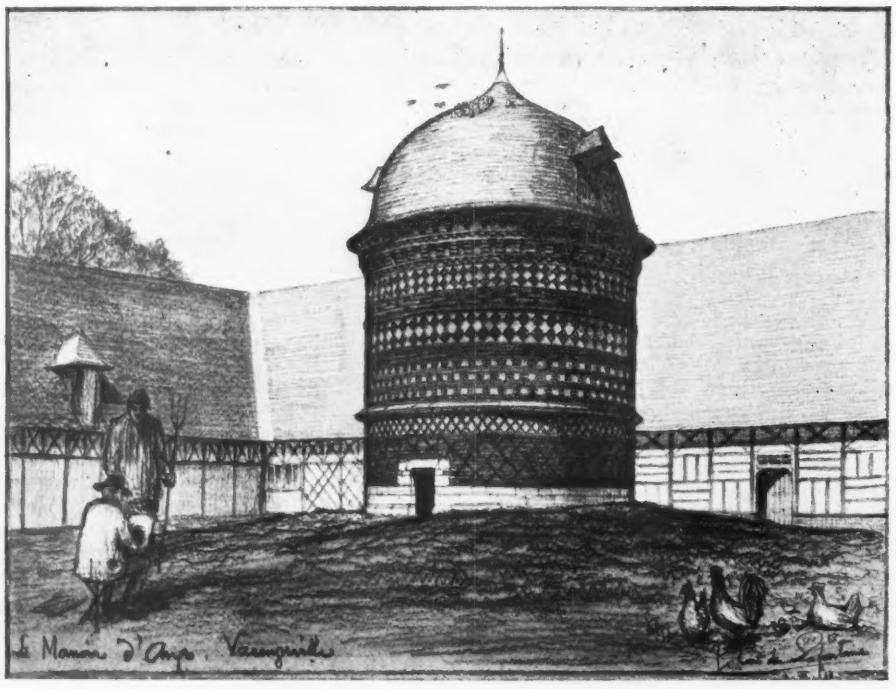
Lunch was taken at the Hôtel du Grand-Cerf, whose fine timbered front and elaborate interior detail make it the second "lion" of the place. From thence the road was again taken to Petit Andelys and the steep height crowned by the ruins of Richard Cœur-de-Lion's Château Gaillard was laboriously climbed. This calculated menace to the King of France, built by Richard in a single year (1197), must have been one of the finest military or building works of any age, yet, despite its triple lines of outworks and seventeen towers, it succumbed in 1204 to Philip Augustus. After a subsequent career as a state prison it was destroyed by Henri IV. in 1663 as part of his measures against the Norman barons. The Church of St. Sauveur at Petit Andelys is a pleasing little work of an organic completeness which contrasts strongly with Grand Andelys. The twelfth-century plan is a Greek cross with apsidal east end, the apse being half a decagon, with only a single eastern chapel beyond the ambulatory. All the aisle windows are lancets, and the unpierced triforium of the choir has a simple pointed arcade, double in the apse and triple in the straight bay next the crossing. In the nave, where the main arcade is higher, there is a blank triforium. The clerestory and transept windows are lofty two-light windows with simple quatrefoils in the head. The church has no tower or spire beyond a lofty slated flèche at the crossing, so that the purity of its Greek cross form is unobscured.

On the return journey to Rouen an inadequate halt was made at Écouis, where the scale and virile design of the church afforded one of the surprises of the excursion. This church is free from the monotonous though noble influence of the Ile de France Gothic. In plan it is an unaisled cross plan with eastern apse, twin western towers, and an extremely solid sacristy adjoining the choir on the north side, which appears to have been the start of another tower. On the southern side of the nave a flamboyant arcade of two bays has been formed, and a richly lierne vaulted aisle or chapel added. With the exception of this portion all the windows have geometrical tracery of the very best class; the transepts and the fine west-end window of six lights grouped in pairs with three cinquefoiled circles above within the comprising arch were in fact acclaimed as some of the finest that could be seen. The external reveals everywhere are deeply splayed, without label moulds, there is abundance of wall space, the lower windows of the towers are plain slits spanned by lintels, and the cumulative effect is one of amazing power. The interior is covered by a pointed barrel vault of red brick with stone flush ribs bonded in quoin fashion. This dates from 1730, but it is difficult to see what other form of roof could have been intended, and possibly it is only a reconstruction. It is about 35 ft.



in span, and well in accord with the bold scale of the general design. The choir contains its mediæval stalls and is wainscoted with fine François Ier panelling, with later Renaissance woodwork round the apse. It was greatly to be regretted that more time had not been spared for the study of this most interesting and unusual church.

Some short way further towards Rouen and another forced halt was made, compelled by sight of the Château de Grainville, seen facing the end of a broad avenue from the road. Again inspection was impossible, and this most attractive building had to be left with a mere hasty glance. The house as seen from the entrance gate appears to be of early seventeenth-century date, consisting of a main block two stories high with lofty pavilion roof and dormers, and two advanced angle pavilions of slightly greater height. The walls are of brick with regular stone flush quoins, and similar quoin-strips connecting the grouped windows vertically. There is a stone pedimented entrance doorway, which gains emphasis from the plain walling by which it is surrounded, owing to the grouping of windows away from the centre. In advance of the forecourt and terminating the avenue is a pair of lofty iron gates with handsome wrought overthrow, and simple tall railings on either side between massive vase-capped piers of banded brick and stone, continued by lower wing walls and piers to the full width of the avenue, the whole forming a semi-ellipse on plan. General regret was felt that the two most architecturally interesting buildings of this day's outing should be met with when no time remained for their proper study.



Pigeon House: Le Manoir d'Ango, Varengeville-sur-Mer.

Sixth Day—Saturday.

The last day of the excursion was devoted to an examination of the sights of Rouen. It is, of course, as presumptuous to attempt the sights of Rouen in a day as it is superfluous to attempt an extended description of what has so often been described from every possible point of view. For such a description from the architect's standpoint reference should be made to the handbook on Rouen by M. Camille Enlart in the "Villes d'Art Célèbres" series, which is exceedingly complete and authoritative, but for the regrettable absence of plans. From the historical standpoint "The Story of Rouen," by Theodore Andrea Cook, in Messrs. Dent's "Mediæval Towns" series, is admirable, despite the confessed bias of its author against Renaissance work.

The earliest of the ancient buidings of Rouen is the Carolingean crypt below the modern Church of St. Gervaise, outside the town, which is of great antiquarian interest. This is followed by the Chapelle St. Julien in the Faubourg of Petit Quevilly, which is a complete work of 1160, and the ancient church of St. Paul below St. Catherine's Mount, east of the town, which retains a Norman apsidal east end. The cathedral, reconstructed immediately after its destruction by fire in 1200, is the next in date as regards the main part of its rather heterogeneous structure. Notwithstanding its

seven towers and widespread west front, it is, however, eclipsed in popular estimation by the noble abbey church of St. Ouen, built anew by Abbé Jean Roussel after the fall of its chief apse in 1318. At his death in 1339 the choir, transepts, and one bay of the nave were built. The work was continued, even through the English occupation, until 1519, when the unique west front was still incomplete. This was unfortunately pulled down and redesigned, when eventually completed in 1846. The justifiable chorus of approval which has always been lavished on St. Ouen was unbroken even through the inappreciative seventeenth and eighteenth centuries. John Evelyn, visiting Rouen in 1643, described it as a "goodly church," and a later traveller in 1759, whose comment on the cathedral was only that "the pillars of the nave are pretty thick," yet declared of St. Ouen that "this church within and without is the most compleat and elegant Gothic building I ever saw."

St. Maclou (named, as one might guess, after a Scotch saint) is a small church so lofty for its size as to make it difficult to examine in comfort. It was commenced in 1432, and the lantern vaulted in 1516; this church originally had a timber spire, which lasted until 1736; a restored copy was built in stone in 1870. The organ loft of 1521, attributed to Jean Goujon, has the celebrated spiral stair of openwork which was the model for Scott's organ stair at Ely. St. Vincent is another of Rouen's churches which should not be missed; the effect of its extremely lofty choir, rising with its glazed triforium and clerestory well above the tower arches and vaulting, is grand in the extreme. This church contains splendid glass. It is unfortunate that the choir and the apse received the very discordant embellishments of Louis XV. ornament which disfigure the main piers and arches. In addition to these justly celebrated churches Rouen contains many others which would individually make the name of many a town, but are passed almost unnoticed in their surroundings—St. Vivien, remarkable for a strikingly English stone broach, which would be quite at home in Northamptonshire; St. Nicaise, St. Patrice, St. Andre (tower), St. Eloi, St. Godard, the desecrated churches of St. Laurent, St. Etienne des Tonneliers, and the Augustins all merit examination.

The civic remains of Rouen previous to the fifteenth century are relatively few and of little importance, but the Tour de Jeanne d'Arc is the donjon of the castle built by Philip Augustus after the expulsion of the English in 1207, and the belfry tower, containing the celebrated Rouvel, dates from 1389. In work of the fifteenth and early sixteenth century the city is rich. One has but to mention the Palais de Justice (1493–1506) (at first the seat of the Cour de l'Echiquier), the Archbishop's Palace, and the slightly later work of the Bureau des Finances (1510) and the Chambre des Comptes (1524) as evidence; the later of these buildings, though more than tinged with the Renaissance, yet owe their character to Gothic tradition. Rouen is unfortunate in that its straightening-out was deferred until comparatively recent times, and hence the city contains relatively few important buildings of the full Renaissance. Mr. Ward, in his fine work on the French Renaissance, relates that Louis XVI. appointed Antoine Le Carpentier in 1756 to draw up a scheme of improvements, which was done quite in the grand manner, but never carried out. Accordingly such buildings as exist are obscured in the maze of mediæval streets. One such is the Hôtel de la Présidence (now des Societies Savants), a simple and dignified building of 1717-22, rather lost in the Rue St. Lo. The Lycée Corneille is more fortunate, and its court of the seventeenth and eighteenth centuries is a straightforward and logical design well seen. The former church of the Jesuits, now its chapel, which dates mainly from 1603, with a façade of 1704, is a piece of extraordinary eclectism worth inspection. The huge Hôtel Dieu, with its imposing Madeleine, is the most extensive work of the eighteenth century. Of domestic buildings, the Hôtel Bourgtheroulde, with its strange tapestry-like carvings, and the collection of ancient house fronts in the grounds of the Musée should on no account be missed, while for mere quaintness almost every ancient street will supply examples. The modern buildings of Rouen are inconspicuous and not generally of the highest quality in contemporary work. The finest is perhaps the Douane, built in 1838 by Isabelle. It is an appropriate and monumental design, rather on the lines of a Florentine palace, but suffers slightly from the too equal division of its architectural stories and from the straddling proportion of the pediment-and-column windows of its chief story. Its internal glazed octagonal court should be visited for the beautiful mythological group by N. Coustou (1726), which formerly occupied the pediment of the old Romaine.

Among miscellaneous buildings, the Fierte de Saint Romain, relic of the astonishing privilege of the Chapter of Rouen to obtain the pardon and release of any prisoner awaiting justice on Ascension Day, is surely unique. It consists of a canopied platform raised on a covered porch and upon it the ceremony of raising the shrine, which was the condition of release, annually took place until the abolition of the privilege. The chapel of the Fierte was built in 1542. Rouen is celebrated for its fountains. The Rue de la Gros Horloge is probably almost the best-known view in Europe. The covered porch containing the clock is a work of 1527-9, but the fountain was not added until the eighteenth century. Its sculptured group of Alpheus and Arethusa was designed by a painter, and looks it. The Fontaines Lisieux and St. Maclou, and the old fontaine de la Croix de Pierre, now in the Museum grounds, are the most notable of the others.

The party, which had begun to dissolve before the final day's pilgrimage under the guidance of M. Delabarre, left Rouen on Saturday evening, some for Paris, but the majority for England. The unfortunate forced interferences with the programme prepared by the Hon. Secretaries, Messrs. Talbot Brown, Hennings, and Dare Clapham, made the excursion of 1913 perhaps less uniformly successful than some others, but the general opinion was that a very pleasant week had been spent.

GENERAL NEWS.

Chester Cathedral Refectory.

An appeal is being made by the Dean and Chapter of Chester Cathedral for funds to enable them to undertake the restoration of the ancient Refectory. Mr. G. Gilbert Scott, in a report submitted to the Dean and Chapter, says that owing to a part of the Refectory being in ruins and cut off from the remainder it is not easy to appreciate what is really the outstanding characteristic of the building, namely, its great size. The finest feature of the building is undoubtedly the well-known Reader's Pulpit. During the recent restoration of the Cathedral this was found to be in a dangerous state, but it has been carefully restored, and is now probably stronger than when first erected. In his scheme of restoration Mr. Scott proposes to repair the foundations where defective, to restore the large east window now partly filled in with brickwork, to construct a new oak roof, to scrape the grey lime-wash from the walls, to expose the stone floor, and, by removing the brick cross wall and wooden gallery, to open out the Refectory from end to end. The approximate cost he estimates at about £11,000.

Letchworth Garden City.

Members of the German Garden City Association have recently paid a visit to Letchworth, where they were received by Mr. E. Howard, the founder of the movement. Mr. Howard, in describing the estate, said that the population had increased from 500 originally to about 8,000 at present. Herr C. A. Monckeberg, in replying, said that they had only previously seen garden suburbs in this country, and Letchworth had a greater message for them on account of its separate municipality.

Exhibition of Works in Wood, Carpenters' Hall, London-wall.

We have received particulars of the Exhibition of Works in Wood to be held by the Carpenters' Company at their Hall, London-wall, from June 8 to 20 next. The judges include Sir T. G. Jackson, Bart., R.A.; Sir George Frampton, R.A.; Sir Aston Webb, C.V.O.; C.B., R.A., F.R.I.B.A.; Sir W. Goscombe John, R.A.; Mr. C. F. A. Voysey, Mr. H. Phillips Fletcher, F.R.I.B.A.; Mr. T. Stirling Lee, Mr. L. A. Turner, Mr. T. F. Rider, C.C., Past-Master of the Joiners' Company; and Mr. Maurice H. Pocock, Past-Master of the Carpenters' Company. Mr. John Wilson, J.P., Past-Master of the Carpenters' Company, will act as Chairman, and the Presidents of the Royal Institute of British Architects, Institution of Civil Engineers, Architectural Association, Surveyors' Institution, Institute of Builders, and London Master Builders' Association will act in co-operation with the judges. The Company will be glad to exhibit specimens of old woodwork, ancient or historic furniture, architectural models, timber, and other objects illustrating the work of craftsmen in any period. Prizes will be awarded for carpentry applied to building of roofs, bridges, shoring, porches, bandstands, staircases, doors, and panelling; for carving, and for furniture, the last division being open to the trade. In the carving division there will also be a class open to amateurs only, for a piece of carving complete in itself; and a gold medal will be awarded for the best piece of carving exhibited, if of sufficient merit, irrespective of division or class.

A Cheap Cottage.

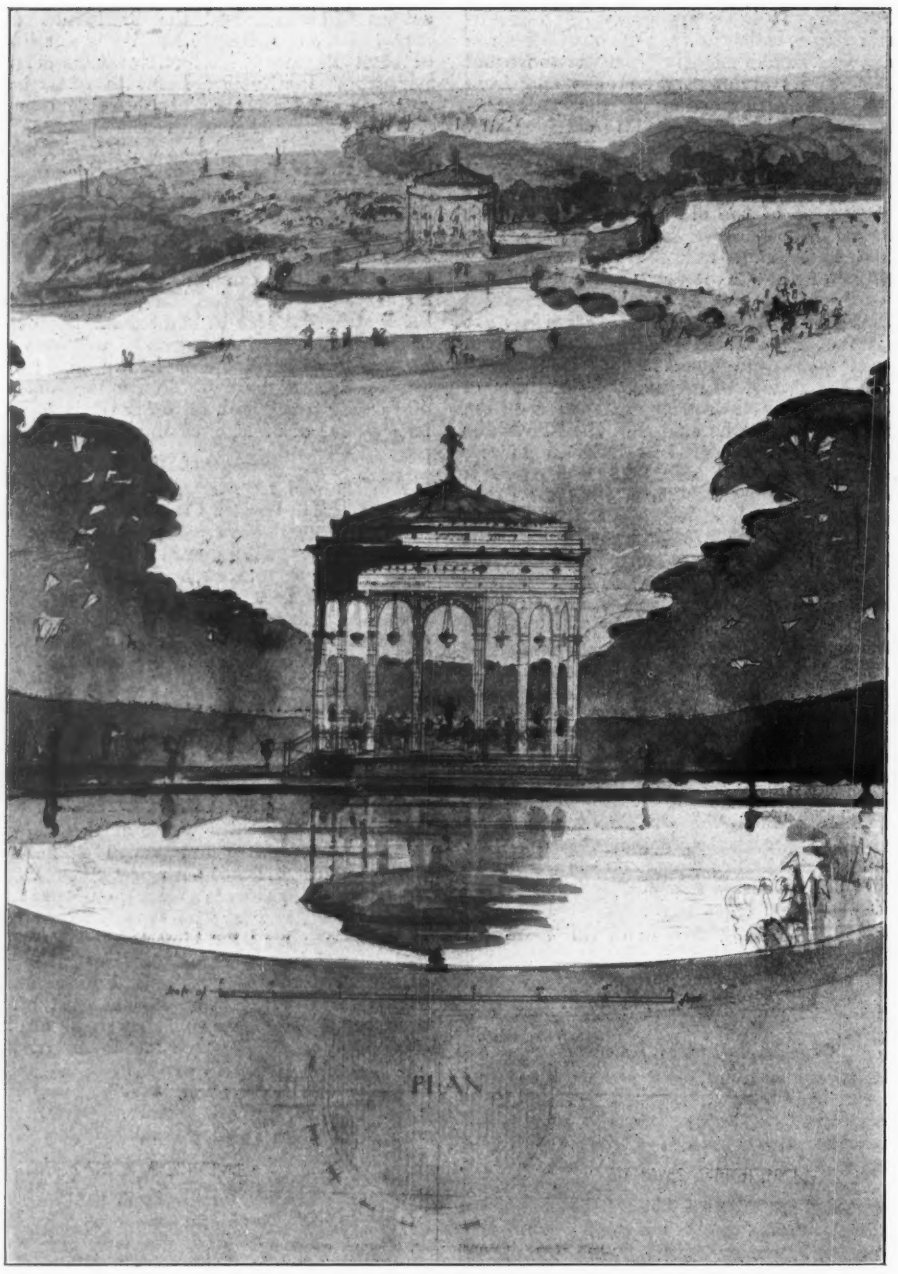
A visit was recently paid by the members of the German Garden City Association to New Earswick, near York. Mr. S. Rowntree, in receiving the visitors, said that probably the most interesting thing he had to show them was a small concrete-built house with a flat roof, which had cost £90 to build. The house contains a living-room, scullery, bathroom, and three bedrooms, and he stated they were making experiments in the village with similar houses of rather better class.

THE LIVERPOOL SCHOOL OF ARCHITECTURE.

To write about the work of the Liverpool School of Architecture, which I have the honour to direct, is not a very decent proceeding. Some of the students' work is illustrated in this number, and he who runs—or better still, designs—can read for himself.

To explain, however, the objective the school has set before itself is a different matter. Ideals are not things to be ashamed of, and a school of architecture, if it is to be anything more than a kindergarten establishment where the budding architect may learn to use his tee-square or lay a wash, must be possessed of them in quite definite shapes. Beyond these and in addition to giving the young architect the mechanical equipment necessary to earning a living, a school of architecture should aim at being a school of thought in the finer sense of the term. It should represent a compact body of opinion and practice. It should strive to produce a consistent philosophy of the art it teaches in order that the student may find therein principles sufficiently wide and true to enable him to approach with confidence any problem, from town planning to furniture design, that architecture may present. If this should be the ideal of any school of architecture it is particularly incumbent on one like the Liverpool School which is an integral part of a university. It is only by professing a definite faith which will ultimately have an effect far beyond its actual students that a school devoted to a practical art can be properly conceived as part of a university faculty. It is the main distinction between a university and a school, however good, that, while both are actively engaged in the diffusion of knowledge, it is part of the function of the former to extend in every direction the scope of knowledge itself. It will be seen therefore that the attitude taken up by the Liverpool School, which from its positive nature often and rightly evokes criticism, is inherent in its status. If its professors ceased to practise and profess definite ideas with regard to their work and became mere schoolmasters, dealing in the ideas of other people, the school might still do useful work, and possibly with enhanced numbers, but it would not be the work proper to a university school.

All this, however, may seem rather tall talk on behalf of any school where of necessity most of the students only stay for full time for two or three years. Still the fact remains, if yearly some twenty or thirty students with their teachers are all experimenting with the same mode of expression, a good deal that is new and interesting is hammered out. Forms and ornament crystallise and achieve definite character. The work of individual students or teachers may be of little value, but the collected mass becomes instructive. The Liverpool Architectural Sketch Book is offered as evidence of this. In any art where two or



Liverpool School: Design for a Band Stand.

By Mr. H. C. Bradshaw.

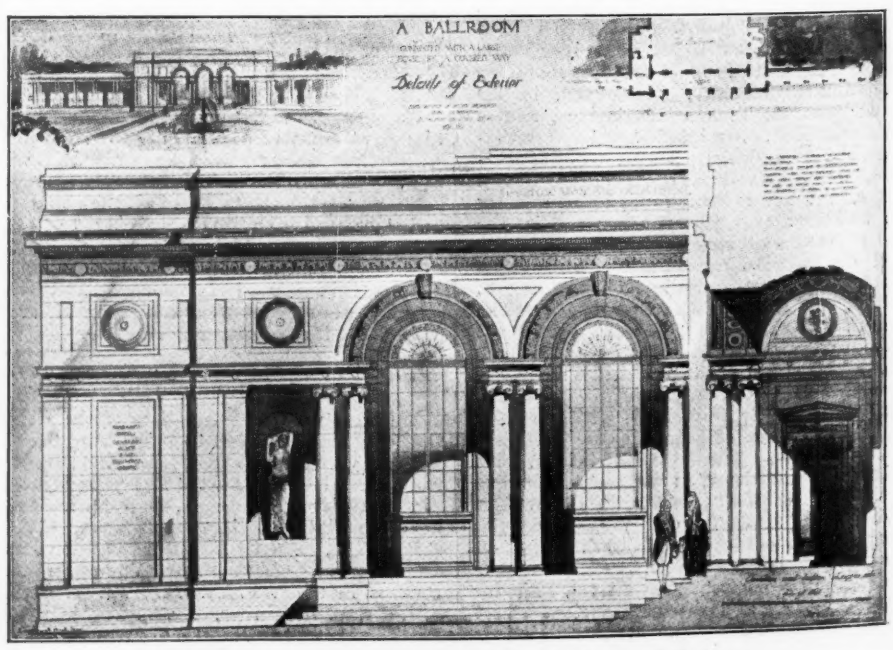
three are gathered together and working on the same lines with the same faith a new spirit, borne of the community, comes into existence. In architecture the vitality of this spirit is assured by directly relating to modern life the problems it works upon. This is the happy test by which our art can always be brought to book.

The mode of expression chosen in the Liverpool School—and it is of course conceivable and perhaps even desirable that other schools should choose other modes—is what I may describe for want of a better term as "fully developed classic." By that I mean that all the playful and half-developed *motifs* and glosses added to the work of antiquity by the various Renaissance styles are rigorously discarded in favour of the mature Greek and Roman work. To the latter we go for monumental planning and composition, to the former for purity of detail. There is little need to-day to argue the advisability of this course. Classical antiquity provides the basis of our civilisation. Its architecture is therefore more likely to form a safe foundation for our own work than any variant or translation of that architecture which subsequent ages have produced. It is for us with our new needs and problems to form for ourselves a fresh synthesis from the old classical formulæ. This is the architectural problem each age has to solve afresh according to its knowledge and to its needs.

For gaining acquaintance with such a form of expression the Liverpool School is admirably situated. Most people nowadays admit that the great movement started at the Renaissance did not end abruptly with Georgian architecture in the eighteenth century, but that instead it received its culmination, as far as England is concerned, with Elmes and Cockerell's work at St. George's Hall. In addition to this great modern synthesis of the classical spirit Liverpool possesses numerous other buildings by Cockerell, Foster, and other less-known architects of the period in which is displayed that full knowledge of the works of antiquity which distinguished English architecture at the beginning of the nineteenth century. These buildings form the best possible starting point for the work of the school. They are sober, mature, and dignified; they are entirely free from the provincial characteristics which are to be found in the work of the earlier masters like Wren and Inigo Jones. They represent the last great effort of English architecture which coincided with the time when the first direct knowledge of Greek refinements and Greek detail was available. And the artists to whose hands this knowledge came had the strength to bend it to their purposes, to master it instead of being mastered by it. The work of this "complete classic" period immediately preceding the Gothic debacle, has been somewhat foolishly termed "Neo-Grec." In this sense then, as using these buildings as a starting point, the work of the Liverpool School may be called Neo-Grec. But it must be understood that the term as employed at Liverpool is a very wide one, embracing fully both Roman and Greek ideas.

For the actual methods of teaching at Liverpool a few words will suffice. The main studio of the school, some 90 ft. by 40 ft., is used as a large atelier where students work out their designs under criticism. At definite intervals alternately long and short a new subject is set and the designs are publicly criticised and placed by a jury in order of merit. Recently a number of these subjects have been the problems for the R.I.B.A. final testimonies of study designs. Students begin to tackle them in their second year. In their first year they study the elements of architecture and construction, they make compositions of the orders, measure detail, and make simple designs.

The awards of the school are made largely on the results of the competitions in the second year. If students do not qualify—obtain the requisite number of "values" to use a Beaux-Arts term—in eight designs, four large and four small, they have to take the second year over again. In this way for a large number of students the course becomes a three years' one. At the end of it all the work done is exhibited in cubicles, forming a series of one-man exhibitions. The external examiner arrives—at present Mr. Ernest Newton—who has already read the written papers, and with the teachers of the school reassesses the work in the cubicles. It is safe to say when one sees displayed the progressive work of a student over a number of years that a fair judgment of capacity can be arrived at. This combined with the written test of the knowledge of facts makes, I think, a form of examination to which the sternest anti-registrationist might agree. The result is a university certificate which if given in the first-class exempts a student from the intermediate R.I.B.A. After this the student, while in an office, can in another two years, by supplying the school with a sufficiency



Liverpool School: Design for a Ballroom. Detail.

By Mr. H. C. Bradshaw.

of designs, convert his certificate into a diploma for the degree of B.Arch. (in this case if he has matriculated and done previously to entering the school one year of general study at the university or has obtained a degree elsewhere).

About one-third of the students come from Liverpool and the adjacent districts. The remainder come from London and other large centres, including Edinburgh and Glasgow. About half the students admitted have already either served articles or have had some sort of office experience. These latter are chiefly attached to the school by its teaching in design. Needless to say such students are welcomed with open arms, for their desire alone is generally proof that they are already of the elect.

C. H. REILLY.

THE FIRST ATELIER:

16, WELLS-MEWS, WELLS-STREET, W.

THE inauguration of an architectural atelier in London, where the opportunities for training in architecture might not unnaturally be regarded as ample, demands some explanation of the reasons which led to the adoption of this course.

The view has been frequently expressed that if the existing schools were thought to have failed in recognising some of the needs of the architectural student, organisation of a propagandist movement would have been a wiser course. Such a view can only be held, however, in the absence of a sympathetic understanding of the real purpose of the atelier, as a means of developing the faculties of its members in a manner absolutely and radically different to that of the class or school.

Teaching, as usually understood, aims at the provision of a copious supply of information to be consumed, and digested if possible, by the recipient; and, as it is much easier to absorb a mass of facts than to deduce from them an organic philosophy, the majority of the students under a rigid and definite curriculum tend to become mere receptacles with but little capacity for utilising the information they have stored up.

The aim of the atelier is not so much to impart information as to develop faculties, and for this purpose its more flexible organisation has been found by experience to be the most efficient.

But it may be said our existing schools do not all tie themselves to a curriculum. Nothing could well be freer than the practice at the Royal Academy or in the studio sections of other well-known schools. In what way is the atelier an advance on these? In reply it may be freely admitted that, despite the very marked distinction in method to which reference will be made later on, many of the advantages of the atelier in respect of the interchange of ideas and the spirit of comradeship are to a great extent shared by these schools, and the introduction of the atelier would be scarcely warranted without more cogent reasons than these.

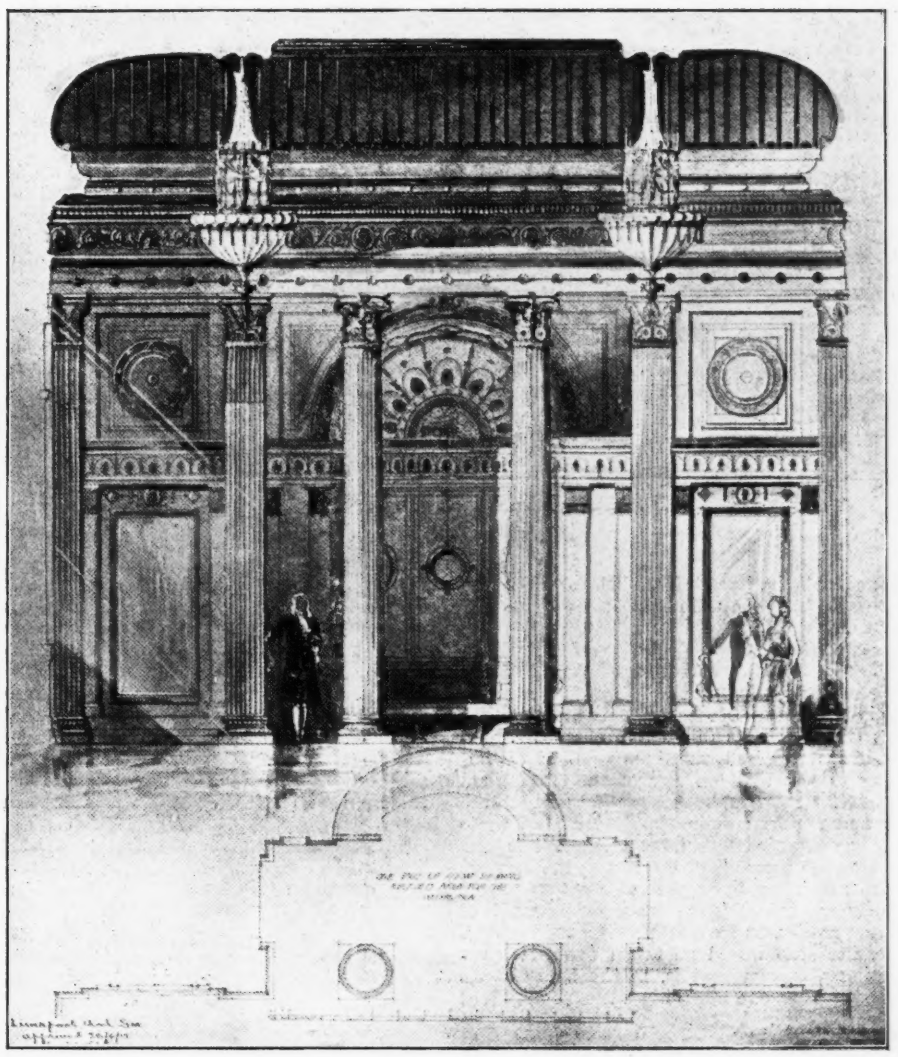
Now the atelier was instituted by the Beaux-Arts Committee, and perhaps the most vehement criticism has been aroused by the harmless-looking words, "Beaux-Arts," which take on such curiously different meanings to artists of varied temperament and upbringing. To one they stand for all that antagonises him in conception and method; to another something well enough suited to the foreigner but out of harmony with the English spirit: to a third a method admirable for certain types of building but equally unsuited to others, and accordingly the term "Beaux-Arts" will be made responsible for every varying degree of individual capacity or limitation.

Without allowing ourselves to wander into a somewhat futile investigation as to how such impressions arise, let us come directly to the question of what the Committee meant to convey in adopting this title and in what way it dominates the character of the atelier work, using as our text a quotation from the explanatory *précis* issued last February:—

"Although such progress has been made in building up schools to replace the pupilage system, it is generally recognised that, however excellent they may be in other respects, they fail in the logical and systematic teaching of those principles of design which are essential if a community of ideas and generally accepted standard of criticism, so necessary to a vital school of architecture, is to be maintained."

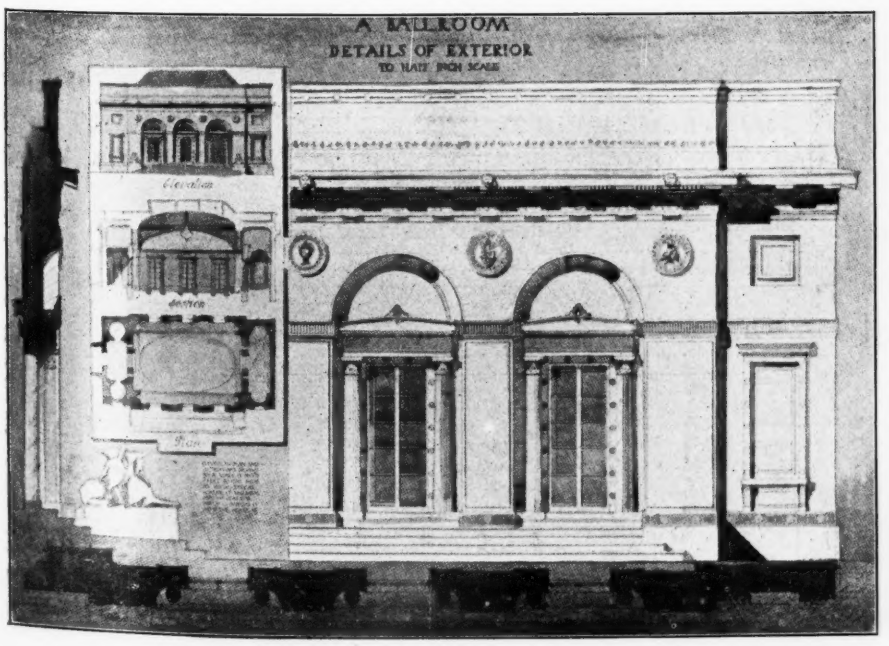
"Such logical system of teaching and standard of criticism exists at the Ecole des Beaux-Arts, where the principles and theory of architecture have been preserved by unbroken traditions since the time of Louis XIV. It is believed that the establishment of the definite architectural principles with which the Beaux-Arts atelier system is intimately connected is the first necessary step in this country toward placing architecture on a sound theoretical basis."

The system here referred to may be epitomised in the phrase "Nothing without a reason." If the traditional forms of the past are referred to, it is solely with a view to indicating the reasons for their adoption and development. When a subject is set as an exercise in design it is with the object of determining what form of architectural treatment will best express the purpose of a structure. It is definitely at issue with unintelligent adaptation of traditional types of building to needs of an utterly different character, it is far less concerned with the exact mode of expression selected by the designer than with the fact that he shall express absolutely and completely in architectural forms the intention of the design he has conceived. It is neither the friend nor the enemy of any recognised style, and while accepting



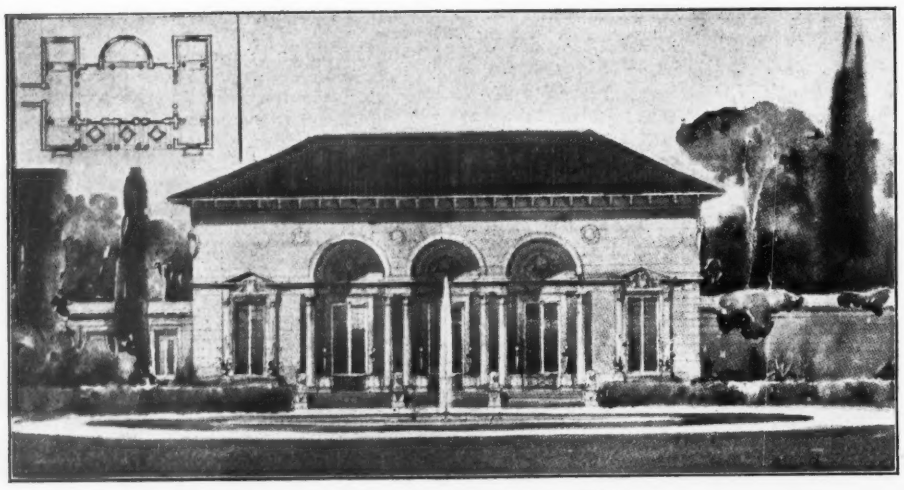
Liverpool School: Design for a Ballroom. Interior Detail.

By Mr. H. C. Bradshaw.



Liverpool School: Design for a Ballroom.

By Mr. H. A. Dod.



Liverpool School: Design for a Ballroom.
By Mr. E. Prestwich.

the valuable heritage of tradition, makes no attempt to insist on the forms of any particular period or school.

An artistically logical solution of a problem as the sole basis for sound architectural design is the main principle of the Beaux-Arts system, and it is the employment of this method that gives the atelier its distinctive character. Its founders recognised the impossibility of imposing this method on any of the established schools, for the simple reason that only those who had received their own training on these lines were qualified to impart it; and it was felt that the possibility of securing the services of the present *patrons* and *sous-patron* would alone more than justify the establishment of such an atelier, as by this means, at all events, a definite step would be taken towards inaugurating a system that is, in the Committee's view, the only one affording a sound standard in architecture.

Perhaps it will be as well at this point to explain by a few instances in what way the study of architectural problems is influenced by Beaux-Arts methods.

It may be fairly claimed that England is in the front rank in appreciating the economic needs in planning a building, both as regards first-cost and subsequent convenience; these are well looked after, but architecture means something more than this. To begin with, we have the site, its aspect, conformation, and surroundings all affecting the form of the design. Symmetry or assymmetry without due reason are each equally absurd. Then we come to the question of purpose, and see the necessity for massing and treatment that will give the proper relative importance to the various functional parts combined in the building as a whole, so that if, for example, there is one of supreme importance it should duly dominate. Again, if there are special practical or æsthetic requirements these must be seized on as valuable aids in enhancing the typical characteristics of the building.

Were such principles as these generally taught and understood we should have had no Regent Quadrant question, no conflict between the trader and the architect, nor would the bulk of our architectural designs indicate such a lamentable failure to tell you whether they are intended to represent a palace, a town hall, a museum, or what not.

Let us make the most of the one brilliant exception we can claim. As a people, we have always loved our house and garden, and this delight has lifted us over our limitations and impelled us towards making a country-house definitely and unquestionably a country-house.

It has been hinted that the Beaux-Arts methods will wreck this instinctive faculty, while in reality nothing is further from the truth, the fact being that hitherto only in the country-house have we worked genuinely and whole-heartedly on Beaux-Arts lines.

The same science of æsthetics is no less applicable to detail than to the broad general principles of design above referred to. How little of the architectural teaching at present in vogue goes beyond the accumulation of a mass of information as to the traditional forms in use in the past, and how useless is this knowledge without an understanding of the origin and purpose of these. We all realise the absurdity of trying to dispense with the valuable results of the wisdom of our forefathers, but they are a snare rather than a help if we cannot follow the train of reasoning, be it conscious or unconscious, that has led to the adoption of this or that form.

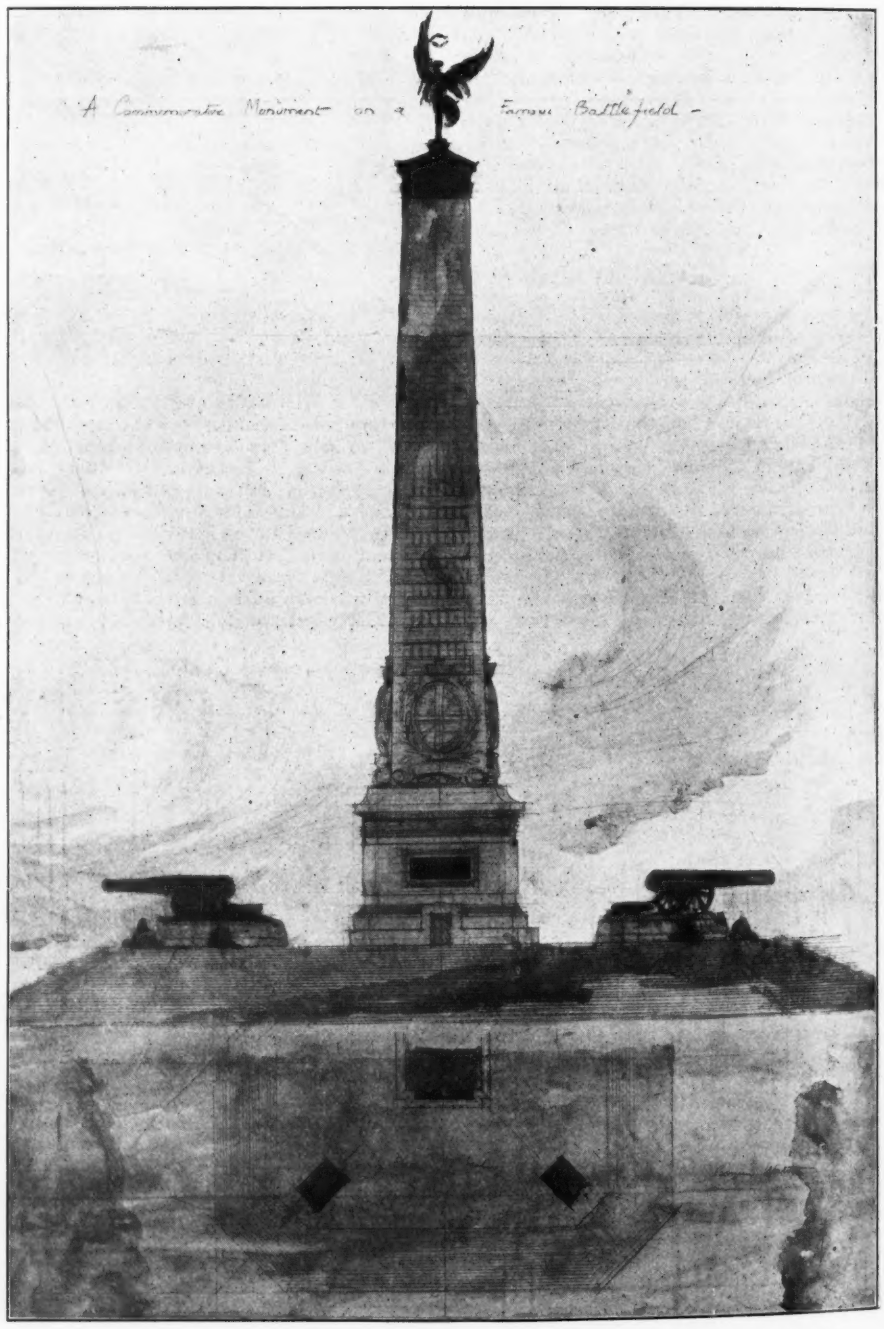
There is the same scope for the employment of the critical faculty in habits of analysis in this as in the problems of the present day, and to evoke and exercise this faculty in the solution of all æsthetic problems is the principal aim of the Beaux-Arts system as practised in the atelier, whether here or abroad. Only by this means can we eliminate the illogical and empirical methods which at present exercise such a disastrous influence on design.

This brief explanation of the general ideas and aims that led to the establishment of the atelier in February last will assist the reader to comprehend the reasons controlling the working practice adopted.

This practice is naturally based on those of the more advanced ateliers in Paris, not because it can be expected that the standard of these can yet be reached, but because the need for this type of instruction is greatest at the present moment. The programme of the French elementary atelier is more nearly covered by our existing schools, while there is nothing that corresponds to the more advanced type. It should be understood, however, that in an organisation so recent in its inception there will, in all probability, be variations in practice as experience shows them to be needful or desirable. The position of the architectural student is not the same here as abroad, and modifications have been, and will be, made to render the conditions of working as flexible as possible.

Following French precedent a subject is set at intervals of from four to six weeks, which the members of the atelier work out in sketch form *en loge* by their own unaided efforts, twelve hours on a Saturday or Sunday (at choice) being allowed for this purpose.

This sketch must be adhered to in principle throughout the subsequent development of the design, and a radical departure from it



The First Atelier: Design for a Commemorative Monument on a Battlefield.
By Mr. Bryan Watson.

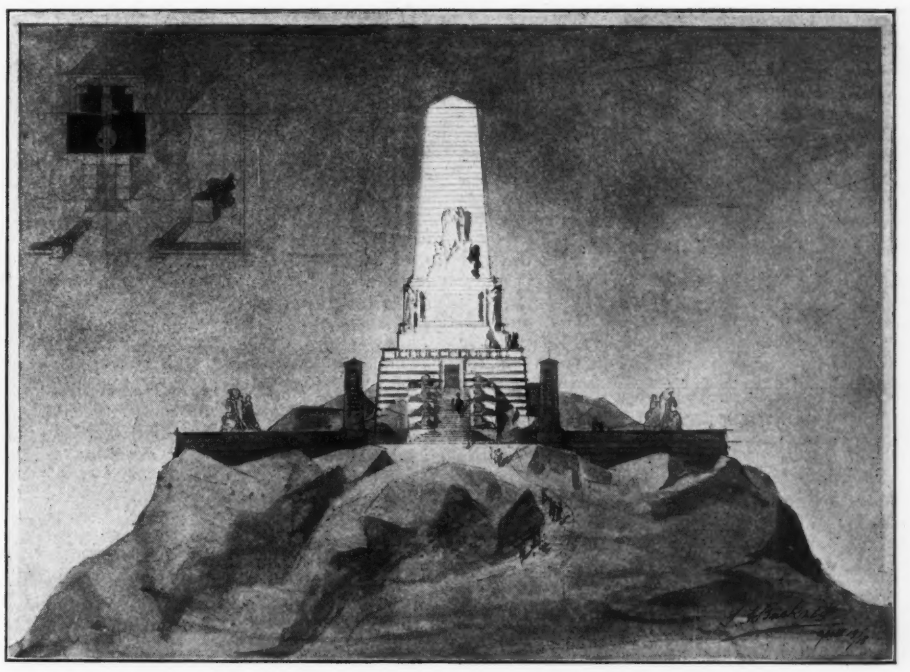
entails disqualification from the competitive standpoint; though, if the student decides that he would derive more benefit by recasting his scheme, he is at liberty to do so and will receive the same measure of advice and final criticism as the others, with the sole exception that his work is *hors de concours*.

Four or more weeks are allotted to the preparation of each complete *projet* or design, during which time no limitation is placed on the advice and assistance that may be given by the *patron*, *sous-patron*, and other members of the atelier, so that each may profit to the largest possible extent by the knowledge and ability of his fellow-workers.

At the conclusion of the time set for a *projet* all the designs submitted are judged and marks awarded by the jury appointed for this purpose, the adjudicators paying careful attention to the original sketch in conjunction with the final design. After each adjudication one of the jury gives a brief criticism of the work submitted.

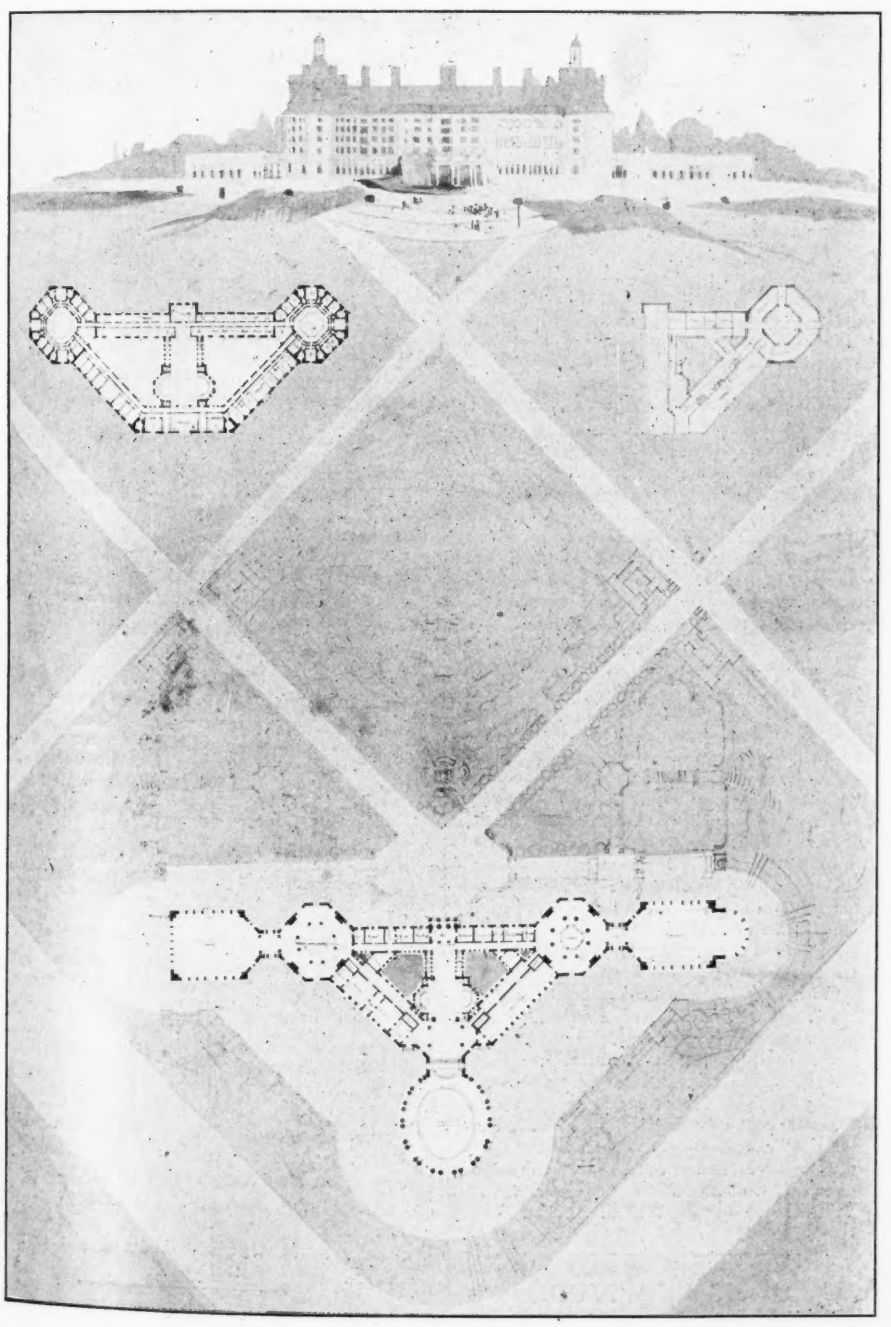
In addition to this regular programme subjects are set for twelve-hour studies not intended to be carried further, and these are also dealt with and criticised by the jury in the same manner as the fully-rendered designs. Every member is also at liberty to work out in the atelier any design in which he may be interested, and is in no way restricted to the subjects set by the *patron* or by the jury.

As far as possible the control and practice of the atelier is left in the hands of the students, who have formed a committee exercising substantially the same functions as the committee of a proprietary club.



The First Atelier: Commemorative Monument on a Battlefield.

By Mr. L. H. Bucknell.



The First Atelier: Design for a Seaside Hotel on an Angle Site.

By Mr. W. G. Newton.

It will thus be seen that the whole organisation is framed with the intention of giving as much scope as possible for co-operative effort, so as to encourage interchange of ideas, and to exercise that critical faculty so valuable, when well directed, in developing a broad and comprehensive view of the principles underlying the art of architecture.

The Committee feel confident that those younger members of the profession who are really earnest and enthusiastic about the future of architecture will themselves make the atelier an active and vigorous institution, and that this and possibly many others on similar lines will help to revitalise architectural design, either by direct influence or by encouraging the established schools to modify their methods in the direction of a more scientific attitude towards the appreciation of æsthetic values.

It is not at present possible to decide exactly what form architectural education may ultimately take, but it is possible to point out an obvious defect, and to adopt what appears to be the most prompt and effective course towards remedying it. This is all that the Beaux-Arts Committee claim to have done.

A few explanatory notes on the designs accompanying this article should be added.

The design for an Institute of Architects, by Mr. Wilmot, was one of those submitted in the first subject set at the atelier, and received a mention. The plans and elevation at the bottom of the page are reproduced from the original twelve-hours' study, and the other two drawings represent the design as completed four weeks later.

The other full-page sheet shows the design by Mr. Bucknell, awarded a mention as the best of those submitted in the second subject; one other design, by Mr. W. G. Newton, also received a mention, and is illustrated herewith. These designs were also based on the preliminary twelve-hours' studies, and a period of six weeks was allotted in which to work them out.

The two designs for a commemorative monument represent studies for which the subject was given out at the beginning of the day, and the design completed within twelve hours. Other subjects have been dealt with in this fashion, including a clock-tower, a museum, staircase, and an undercliff promenade.

In all the problems that have been set some definite question of principle is involved, and the decisions have been mainly influenced by the extent to which this has been appreciated in the designs.

It may be pointed out these illustrations are all taken from work executed within three months from the opening of the atelier, so that they cannot fairly be judged as more than an indication of the methods employed.

An exhibition of further designs will be held in the evening of September 17, which will mark a further stage in the progress of the work.

H. V. LANCHESTER.

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ILLUSTRATIONS.

The Work of Students of Some Schools of Architecture.

WE give this week an extra number of inset illustrations and many blocks in text in order to illustrate the work of the students of four schools of architecture—*i.e.*, the Architectural Association of London, the Liverpool School of Architecture, the Manchester School of Architecture, and the new Atelier recently formed in London. The aims and objects of the schools in question are referred to in the special articles, written by the Principals of the schools, which will be found in this issue.

UNIVERSITY OF LONDON: SCHOOL OF ARCHITECTURE AT UNIVERSITY COLLEGE.

THE new building at University College for the School of Architecture, which is being provided by the generosity of an anonymous benefactor, will be open in October. By this benefaction the Senate of the University of London has been enabled to carry out the scheme for the combination of the Architectural Schools of the University and King's Colleges. The combined schools will henceforward be carried on in the new building at University College. This building for the School of Architecture of the University of London is the largest and most complete of its kind in the United Kingdom. It provides accommodation for over one hundred students, and includes:—

Three large Studios (50 ft. square, 35 ft. by 22 ft., 27 ft. by 29 ft.) for both ordinary and advanced students.

A Museum, 50 ft. square.

A Cast Gallery, 48 ft. by 28 ft.

A Library, 35 ft. by 22 ft.

A Lecture Theatre, 46 ft. by 28 ft., with two screens for double lanterns.

A Classroom, 27 ft. by 19 ft.

An Entrance Hall, 27 ft. by 19 ft.

There are also private rooms for professors and lecturers, a diagram-room, dark-room, cloak-rooms, lavatories, and additional rooms for new developments, which can be utilised as required. It is intended to use some of these rooms at an early date for a Department of Town Planning.

The Cast Gallery and Studios are exceptionally well lighted, and the latter are fitted with specially-designed working benches. The collections of books, models, samples of materials, casts, etc., already possessed by the two existing schools at University College and King's College are being considerably increased, and the equipment will be complete and thoroughly up to date.

University College, owing to its central position, its engineering laboratories, Slade School of Fine Art, new modelling studios about to be constructed, School of Hygiene, Department of Archæology, and lectures and classes on general subjects, offers special facilities for a full and comprehensive course of architectural education on a sound basis. The advantages to be gained by students attending lectures and classes in other departments are manifest. They are brought into touch with students engaged in other but to some extent kindred pursuits; they work side by side with future engineers, painters, sculptors, doctors, etc. In the lectures on general subjects and in the collegiate life they meet students intending to follow other professions or callings. Not only is such general intercourse advantageous to architectural students during the period of their early study, but is likely to be of lasting benefit to them.

Aims of the School.

The School is organised so as to give a course of systematic training on a broad basis to students about to enter the architectural profession. The aims of the School are to interest students, to encourage amongst them a spirit of keenness, to help them to understand the importance of the career upon which they are entering, to ground them in construction and the principles of design, and to give them some insight into the nobility and beauty of the architectural masterpieces of the past.

Architecture is now a many-sided subject, and branches of it have to be mastered which formerly either did not exist or else required little knowledge. It is not sufficient to devote attention to one branch alone. Practical and æsthetic requirements are equally important, and must be considered side by side. An architect must be able to construct soundly, otherwise his building will not stand; he must be capable of giving it fit expression and distinction, otherwise it cannot rank as architecture. In the short time—two or three years—that a student remains in the day courses of the School it is impossible that he can master all technicalities, but the courses are made as broad and comprehensive as possible so as to include the most essential.

The "Orders" are taken as the basis for design in the studio. The greater part of a student's first year is devoted to their rendering and to exercises on them of increasing difficulty, preliminary exercises in perspective and shadows being set to enable him to express them properly. Without a thorough knowledge of the "Orders" and the principles of Classic Design students cannot pass to the third year or to the Academic Design course. Unity in architectural expression is essential if architecture is to advance, and students should not have their minds distracted by being called upon to study closely and work out exercises in different styles. The beauties of all past styles are acknowledged and cannot be ignored, but the lectures on the History of Architectural Development should be sufficient to enable students to get some insight into their merits and understand and appreciate the lessons they teach. The greater part of the students' second year is devoted to practical designing—*i.e.*, the planning and designing of more or less simple buildings of an everyday character—and towards the end of their second year, or in a subsequent third year, they can enter the course of Academic Design.

Building construction has changed so much of recent years that what was included originally under this head no longer suffices. Such knowledge of steel and reinforced concrete is now necessary as will enable architects to manage smaller problems unaided and to co-operate effectively with the engineer when bigger problems present themselves. Architectural students study this branch in the engineering laboratory side by side with engineering students, an arrangement that is of advantage to both classes.

Although architectural drawings are merely a means to an end, and not the end themselves, the ability to express ideas on paper in a satisfactory and attractive manner is essential to the architect. Actual architectural drawing is, of course, dealt with in the architectural studio, but drawings from casts and the life are mainly made in the Slade School. The teaching of modelling is at present carried on in temporary studios within three minutes' walk of the College buildings. New modelling studios are about to be built by the benefactor who provided the School of Architecture. When these modelling studios are finished, architectural students will also be able to obtain instruction in modelling, and the three great arts of Painting, Sculpture, and Architecture will be housed side by side. Painters, sculptors, and architects are sometimes called upon to collaborate, and would be frequently so called upon if they better understood one another's work. The close association of students in the kindred arts should do much to promote such an understanding.

W. W. SETON,
Secretary.

BOOK RECEIVED.

BUILDING CODE. By F. W. Fitzpatrick. (London: Crosby Lockwood & Son. 4s. 6d. net.)

CORRESPONDENCE.

"Steel Wire Rope *versus* Chain."

SIR,—In an important and prominent article headed as above in your issue of August 22 on the subject of wire rope *versus* chain the penultimate paragraph points out that, although the article applies only to ropes used on cranes, "it is, however, a growing practice among builders to substitute wire rope for chain wherever possible." We submit that, read by the cursory reader, the title and this general statement taken together and accepted as the considered opinion of so important an organ of the trade as the *Builder* is calculated to create a wrong impression.

As manufacturers of the Scaffixer Scaffold Tie (of which a chain is an essential part), may we be allowed to clear away the apprehension we fear your article may raise in the minds of builders and others by stating that our experience is that there is a rapidly growing demand for the patent chain lashing which we supply for scaffolding. We may mention that Scaffixer Chains, in addition to being supplied in a diameter much above what is required for the work they ordinarily have to do, are tested thoroughly before leaving our works, are made of the very highest quality of steel procurable, and are guaranteed for five years. As a matter of fact, the tensile strain placed upon the Scaffixer Lashing in the operation of fixing is of such a character that any latent defect invisible to examination would be discovered at the moment of making the lashing. Moreover, we are completing arrangements whereby users of the Scaffixer Lashings can have their Scaffixer Chains tested periodically by us *free of charge*.

Although hundreds of thousands of Scaffixers have been supplied to the trade, they have never yet been associated with a single accident, and this, together with the fact that they are in use on the principal contracts now in progress in London is strong evidence that, at any rate with regard to scaffold lashings, "the growing practice among builders" is in the direction of using Scaffixer Chains.

THE PATENT RAPID SCAFFOLD TIE COMPANY, LTD.
(D. PALMER JONES, Managing Director.)

[*** The article was written by a disinterested expert, who intended to refer to cranes only, and his remarks must in no way be construed into a reflection on the well-known appliances of the Patent Rapid Scaffold Tie Company or of anyone else.—ED.]

*** A letter on "The Measurement of Daylight Illumination" is unavoidably held over until next week.—ED.

INTERCOMMUNICATION COLUMN.

Making Gas.

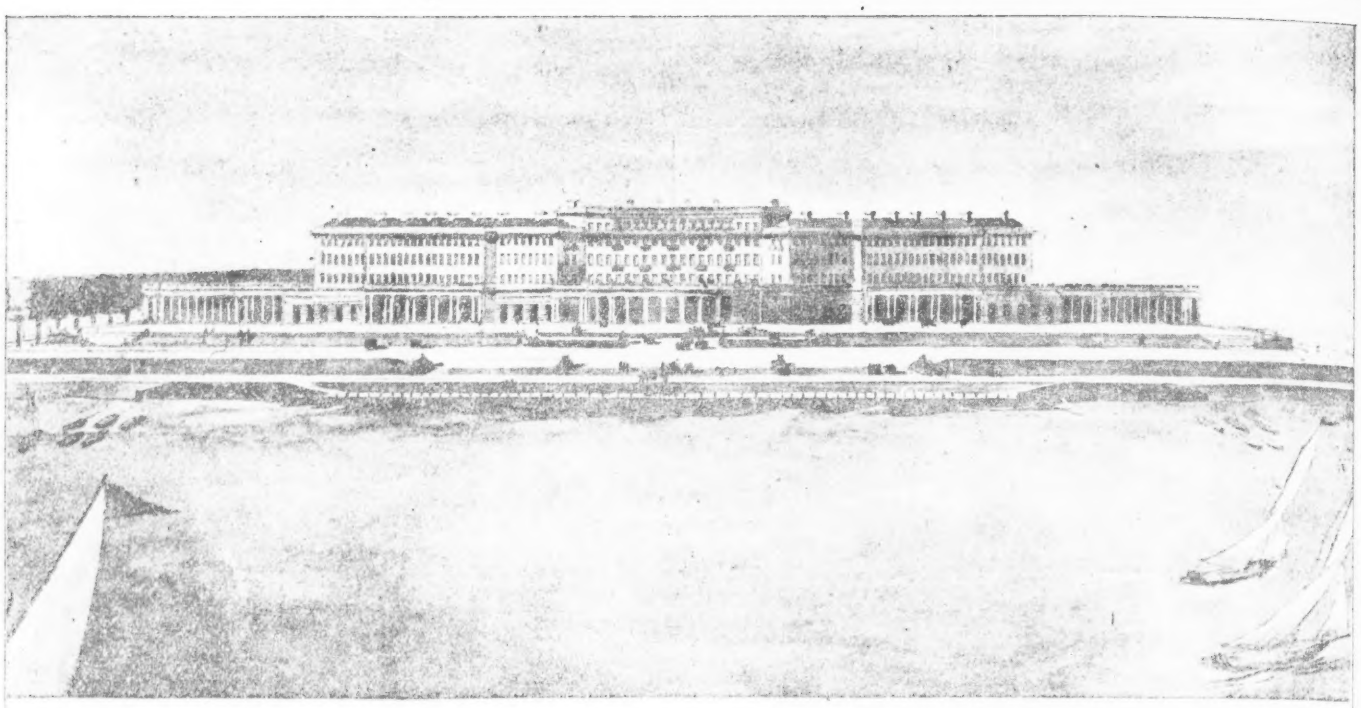
SIR,—Will you, or any of your readers, inform me how to make clean, pure gas from kerosene (petroleum) or crude oil, and where a small apparatus can be obtained, and the probable cost? INDIA.

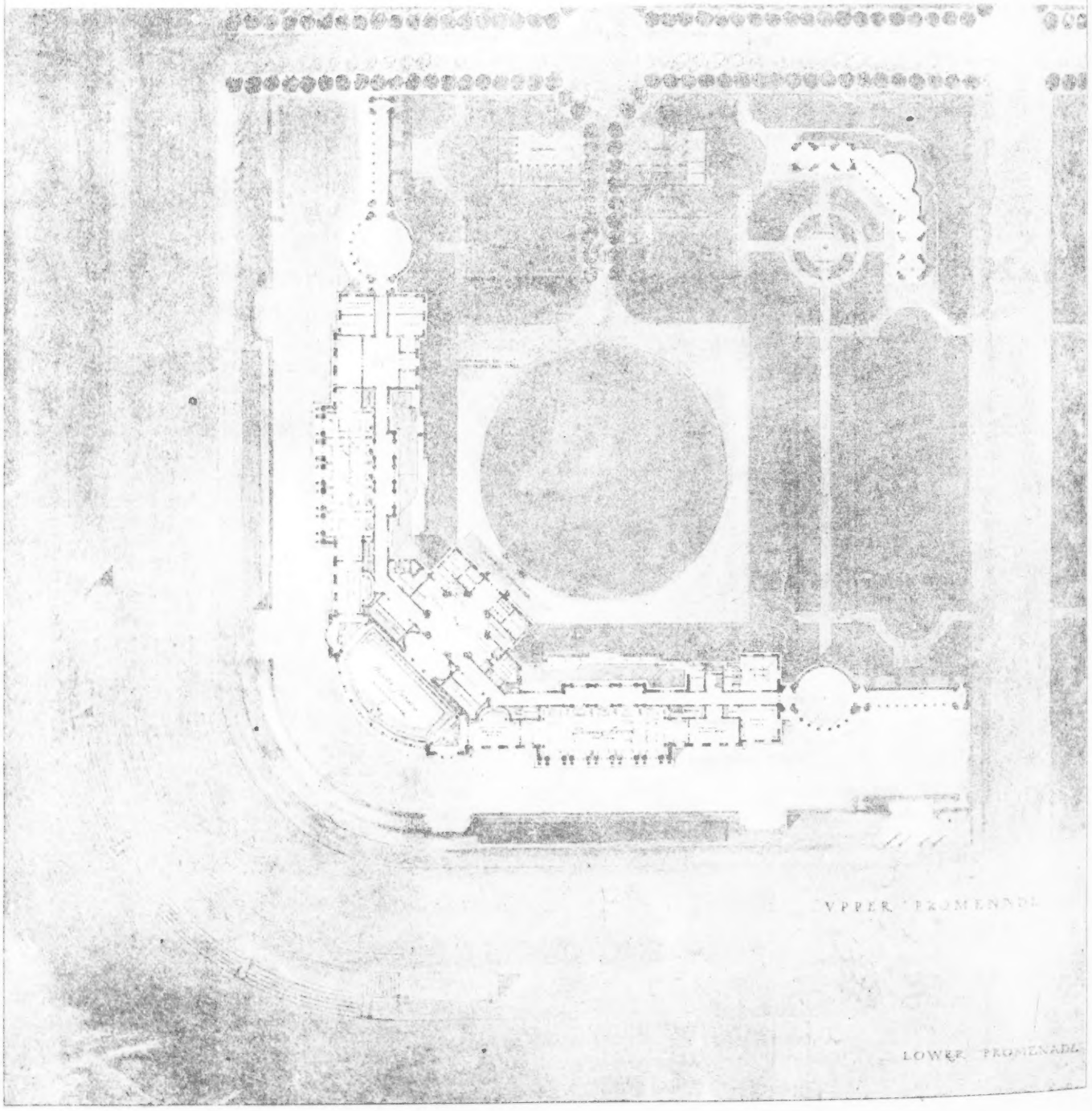
FIFTY YEARS AGO.

From the *Builder* of August 29, 1863.

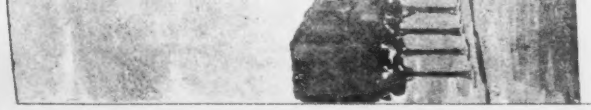
BILLINGSGATE MARKET.—Complaints are made of the sanitary state of Billingsgate, which, judging from what we saw when last visiting the place, are not without foundation. Bordering the River Thames, with a steam-engine to pump up water more speedily than hands can use it, as remarked by a writer in the *Morning Post*, no excuse can palliate the offensiveness at times. During warm weather particularly, more labour, care, and attention ought to be bestowed on scrubbing, scraping, and washing. Most of the paint is off for several feet from the floors, and all above-head looks dull and dingy.

*** We are afraid that Billingsgate has become notorious in an evil sense despite the new market which we know of.—ED.



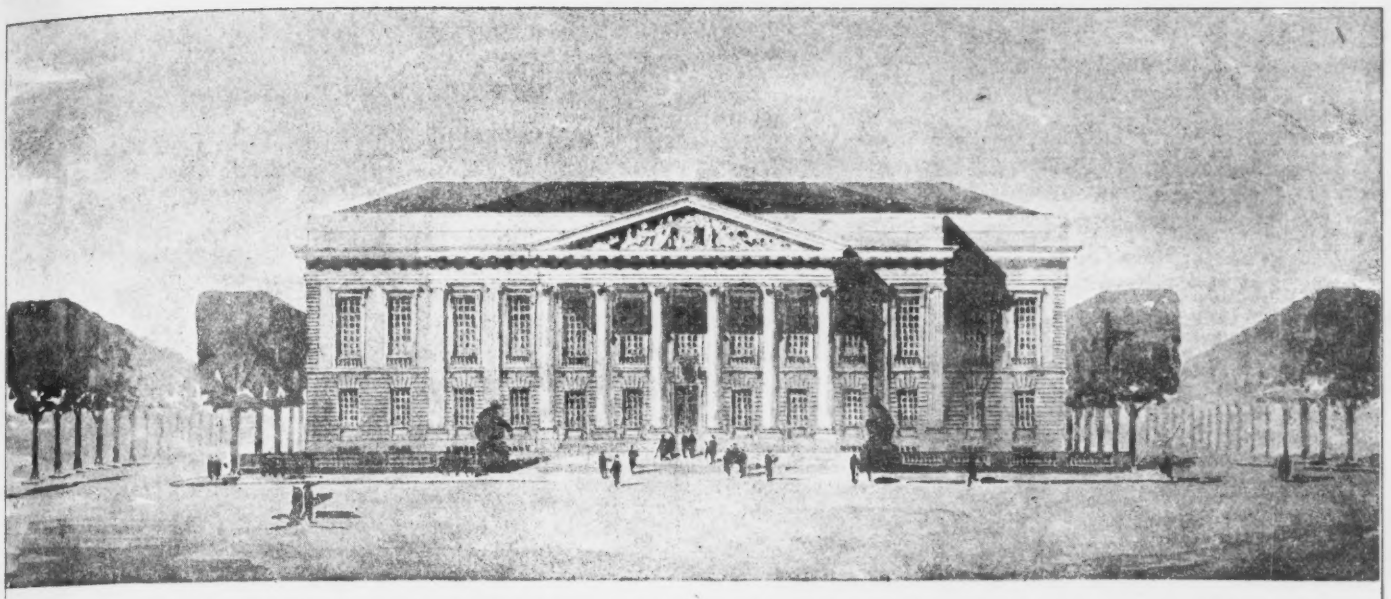


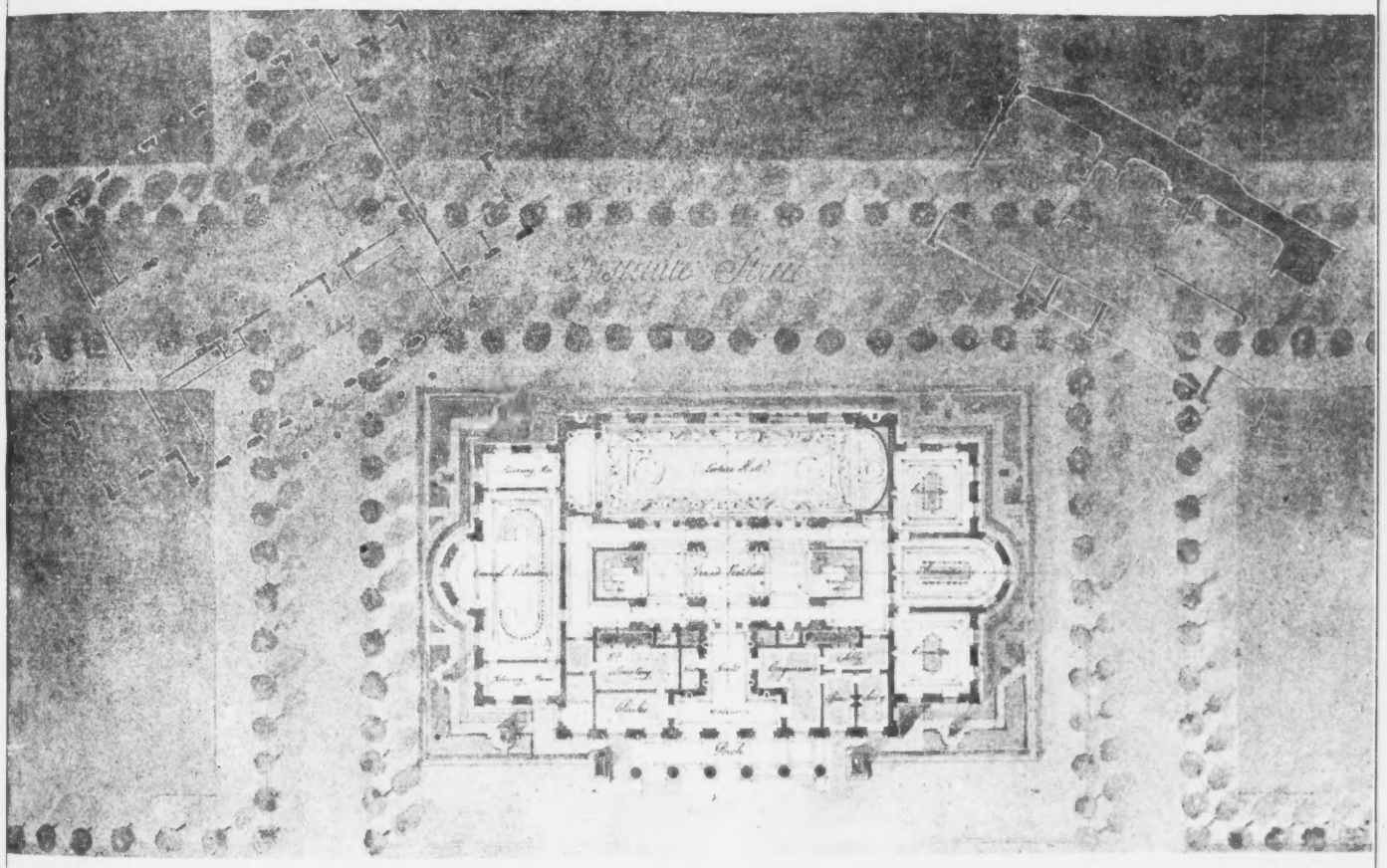
Design for a Seaside Hotel on an Angle Site.—By Mr. L. H. Bucknell.

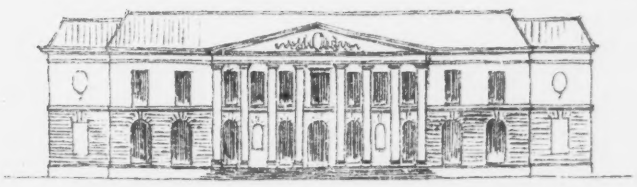


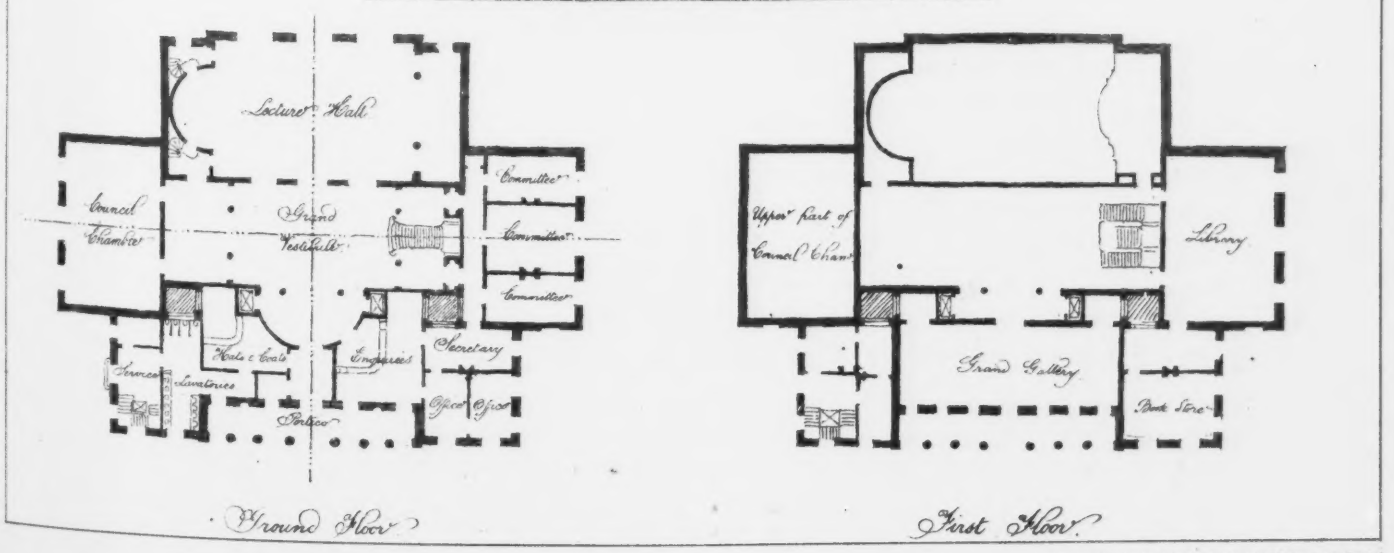
ATELIER, LONDON

, 1913.





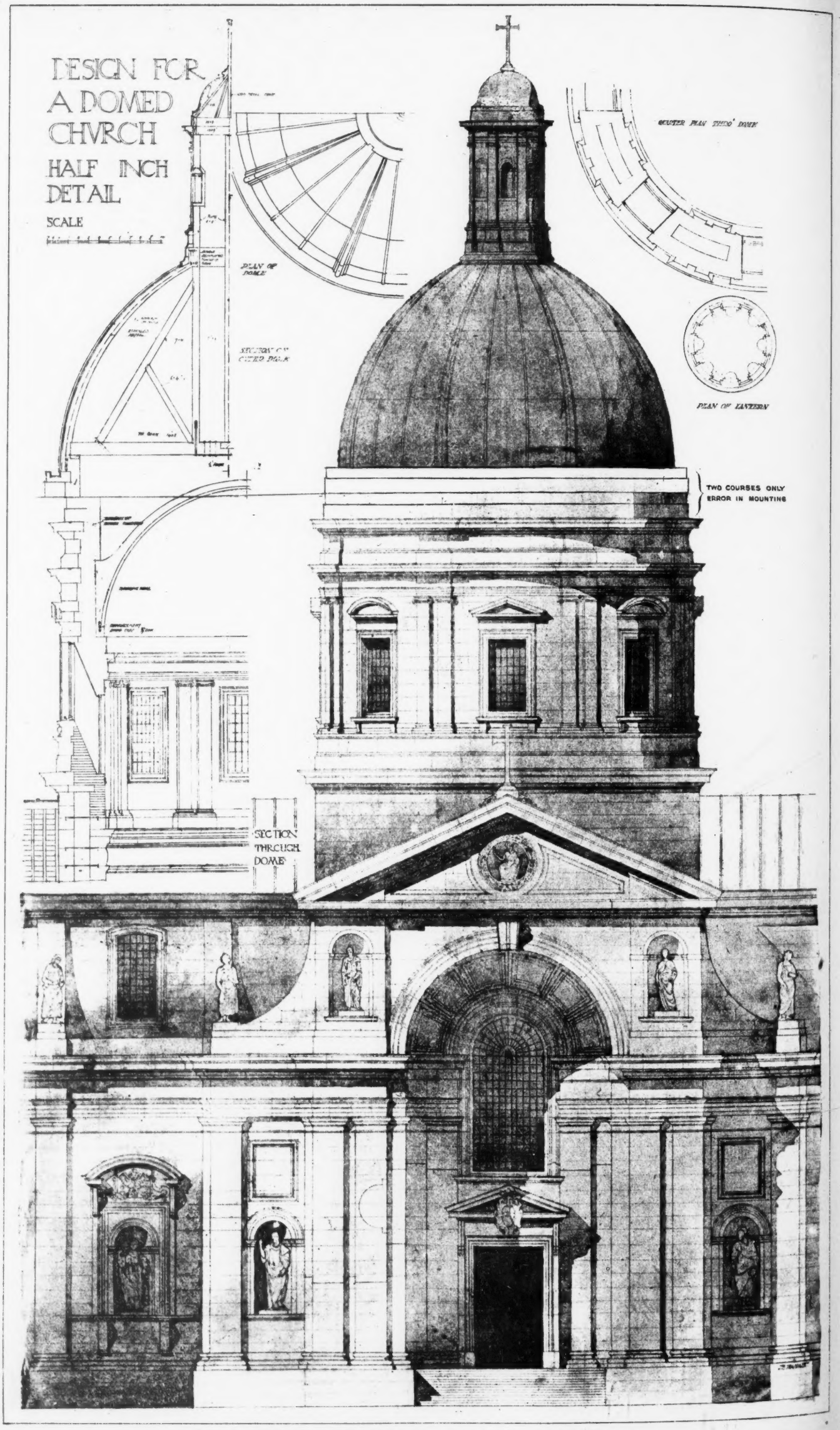




Martin Hood & Larkin, Photolithic, 61 Newport St, W.C.

DESIGN FOR AN INSTITUTE OF ARCHITECTS IN A CAPITAL CITY.—BY MR. C. SPENCER WILLMOTT.

ATELIER, LONDON.



DESIGN FOR A DOMED CHURCH: DETAIL.—BY MR. J. B. TEASDALE.

DESIGN
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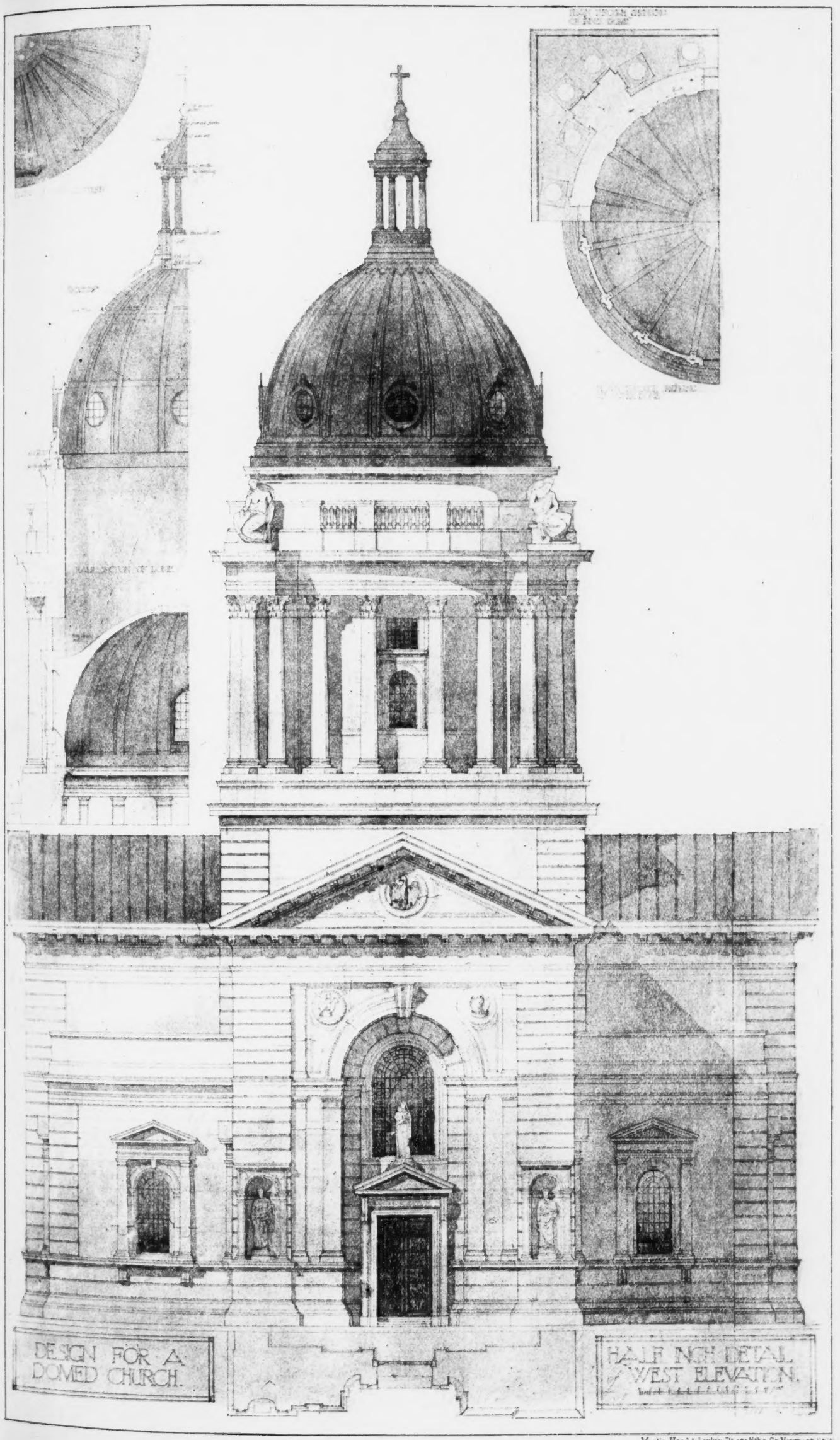
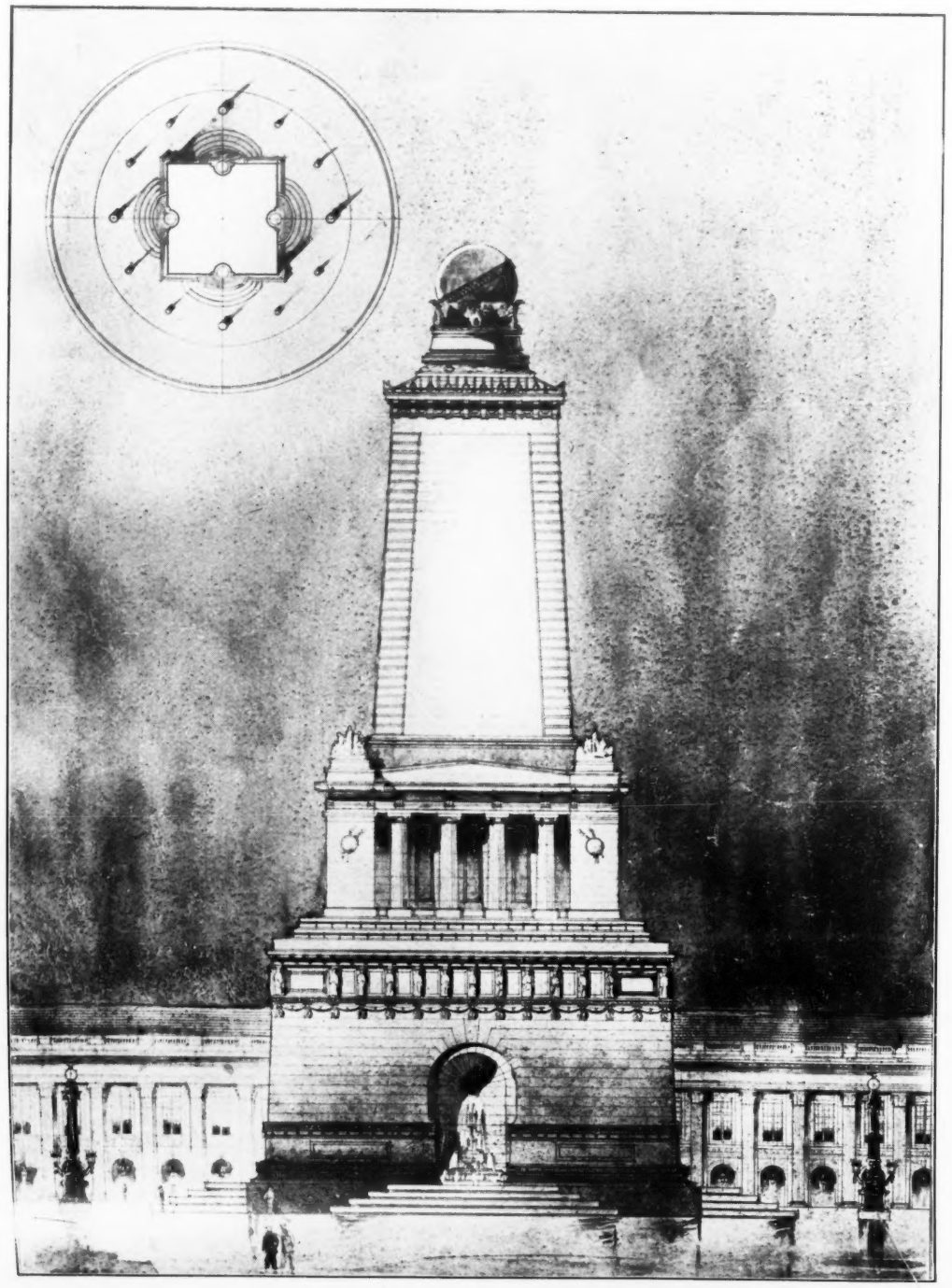
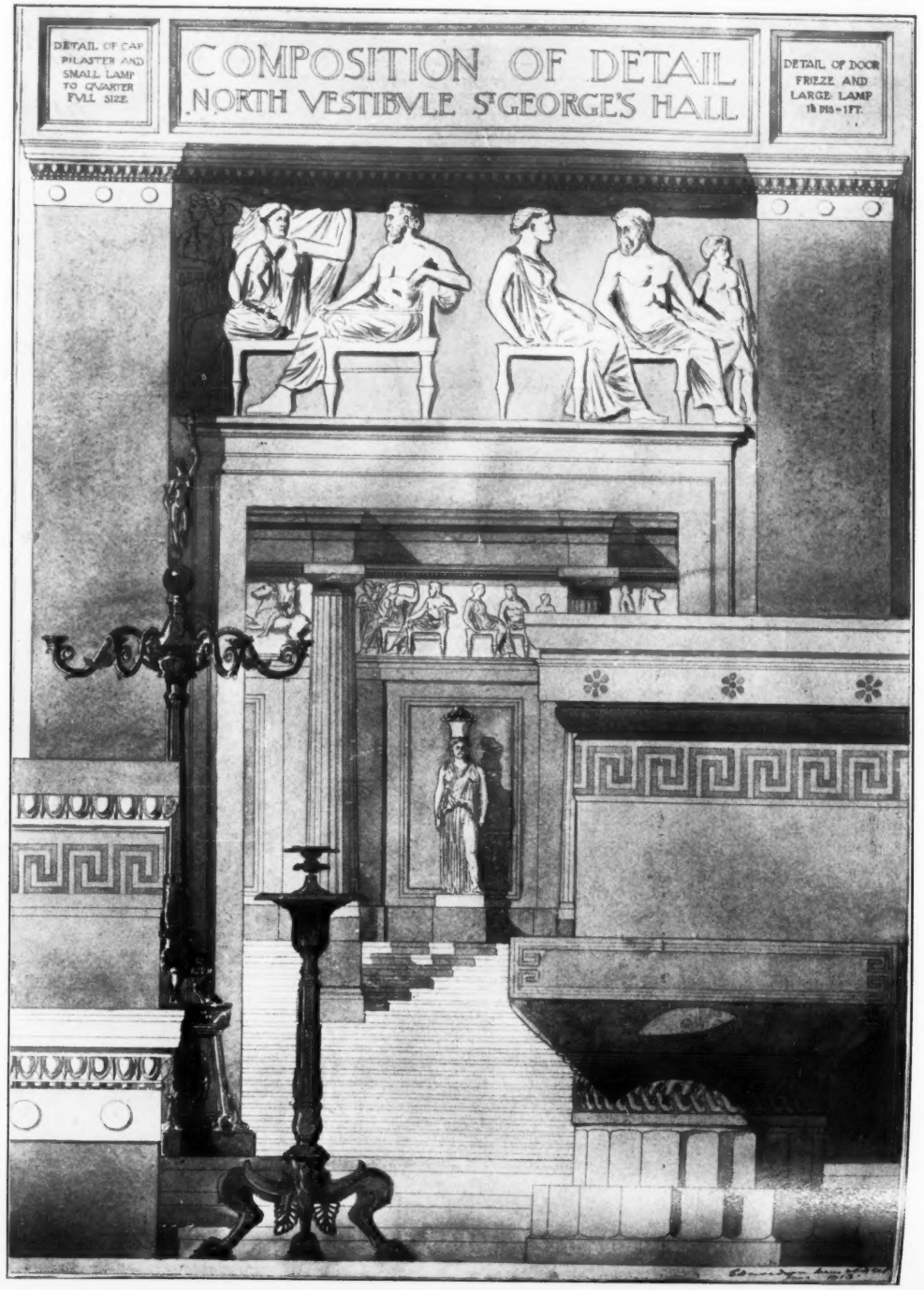


DESIGN FOR A DOMED CHURCH: DETAIL.—BY MR. G. B. HOWCROFT.

Martin, Hood & Larkin Photolitho., 61, Newport St., W.



Design for a Monument.—By Mr. F. Jenkins.


DETAIL OF CAP PILASTER AND SMALL LAMP TO QUARTER FULL SIZE
COMPOSITION OF DETAIL
NORTH VESTIBULE St GEORGE'S HALL
DETAIL OF DOOR FRIEZE AND LARGE LAMP
½ INS = 1 FT.

Composition of Detail from St. George's Hall, Liverpool.—By Mr. G. Davidson.

COMPOSITION OF DETAIL FROM ST. GEORGE'S HALL, LIVERPOOL.—BY MR. G. DAVIDSON.

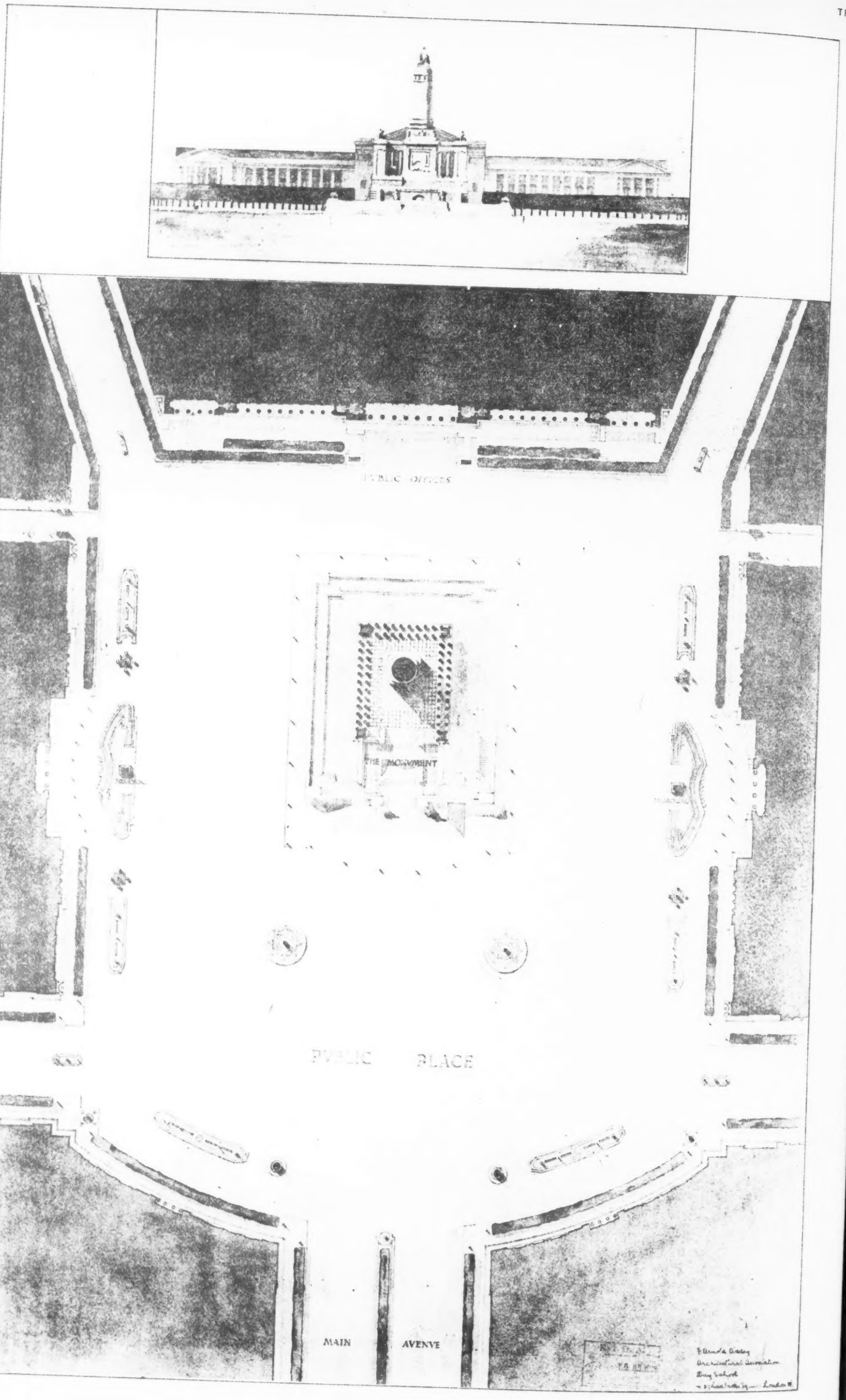
DESIGN FOR A MONUMENT.—BY MR. F. JENKINS.

DESIGN FOR A TERMINAL RAILWAY STATION.—BY Mr. H. C. BRADSHAW.

Martin, Hood and Larkin, 5 Great Newport Street, London, W.C.

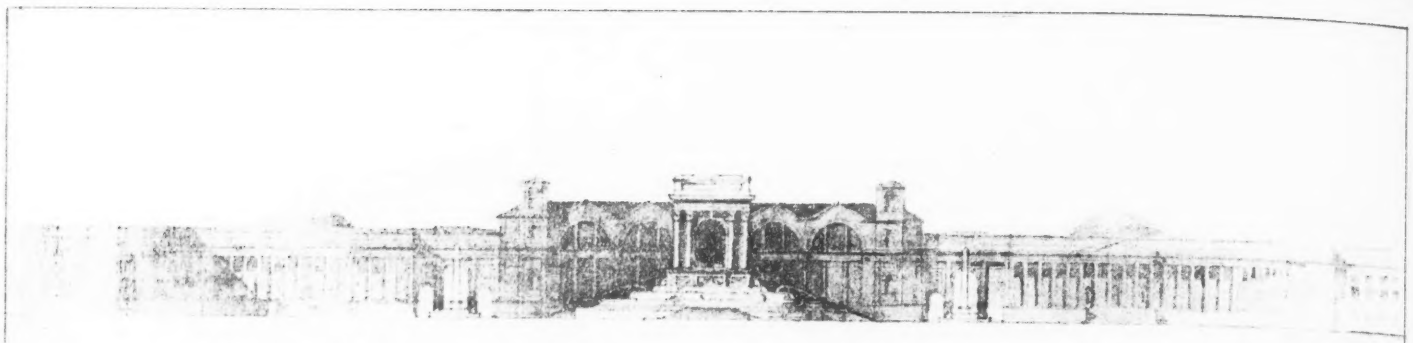
DESIGN FOR A MONUMENTAL STAIRCASE.—BY Mr. B. NEWBOULT.

STUDENTS' WORK, LIVERPOOL SCHOOL OF ARCHITECTURE.

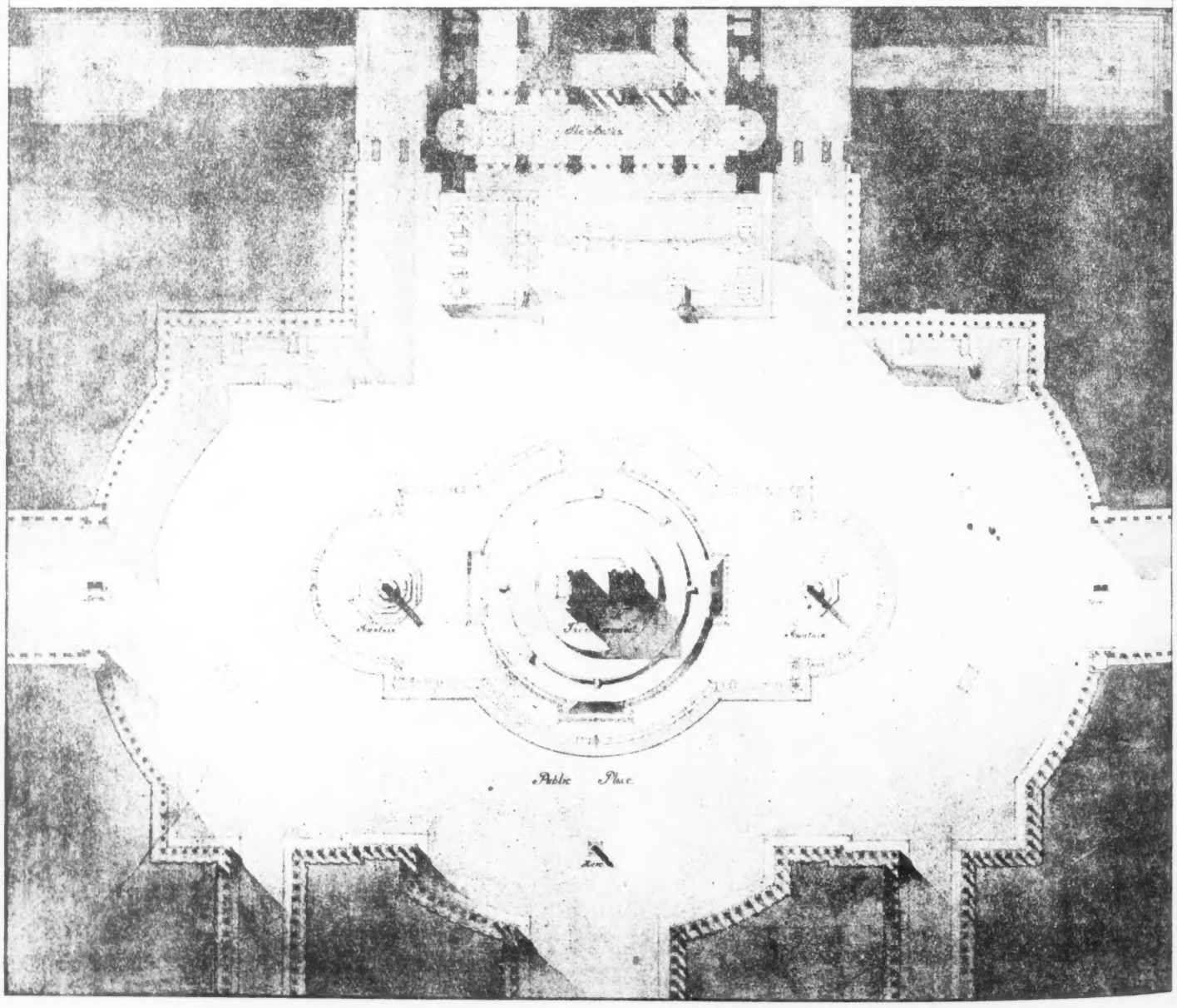


DESIGN FOR A MONUMENT TO COMMEMORATE THE

STUDENTS' WORK, ARCHITECTURAL

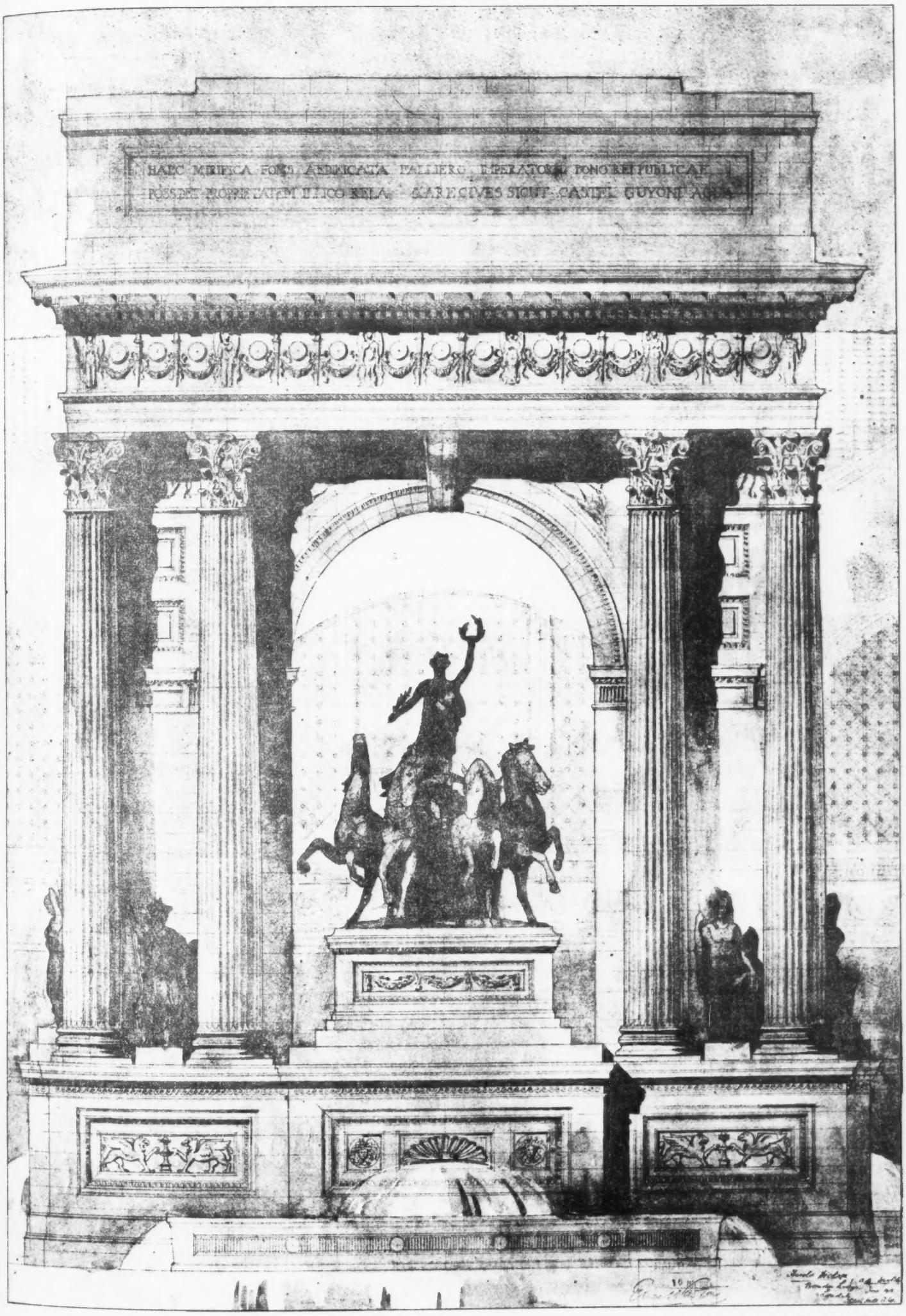


A MONUMENT TO COMMEMORATE THE BRINGING OF WATER TO A TOWN.



DESIGN FOR A MONUMENT TO COMMEMORATE THE BRINGING OF WATER TO A TOWN.

STUDENTS' WORK, ARCHITECTURAL ASSOCIATION SCHOOL.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Martin Hood & Lawton, Photo-litho, St. Newport St. W.C.

NGING OF WATER TO A TOWN.—By Mr. Harold Dicksee.

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NG OF WATER TO A TOWN.—By Mr. F. Arnold Addey.

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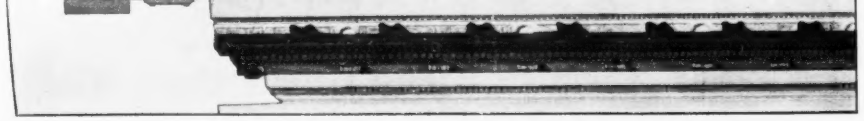
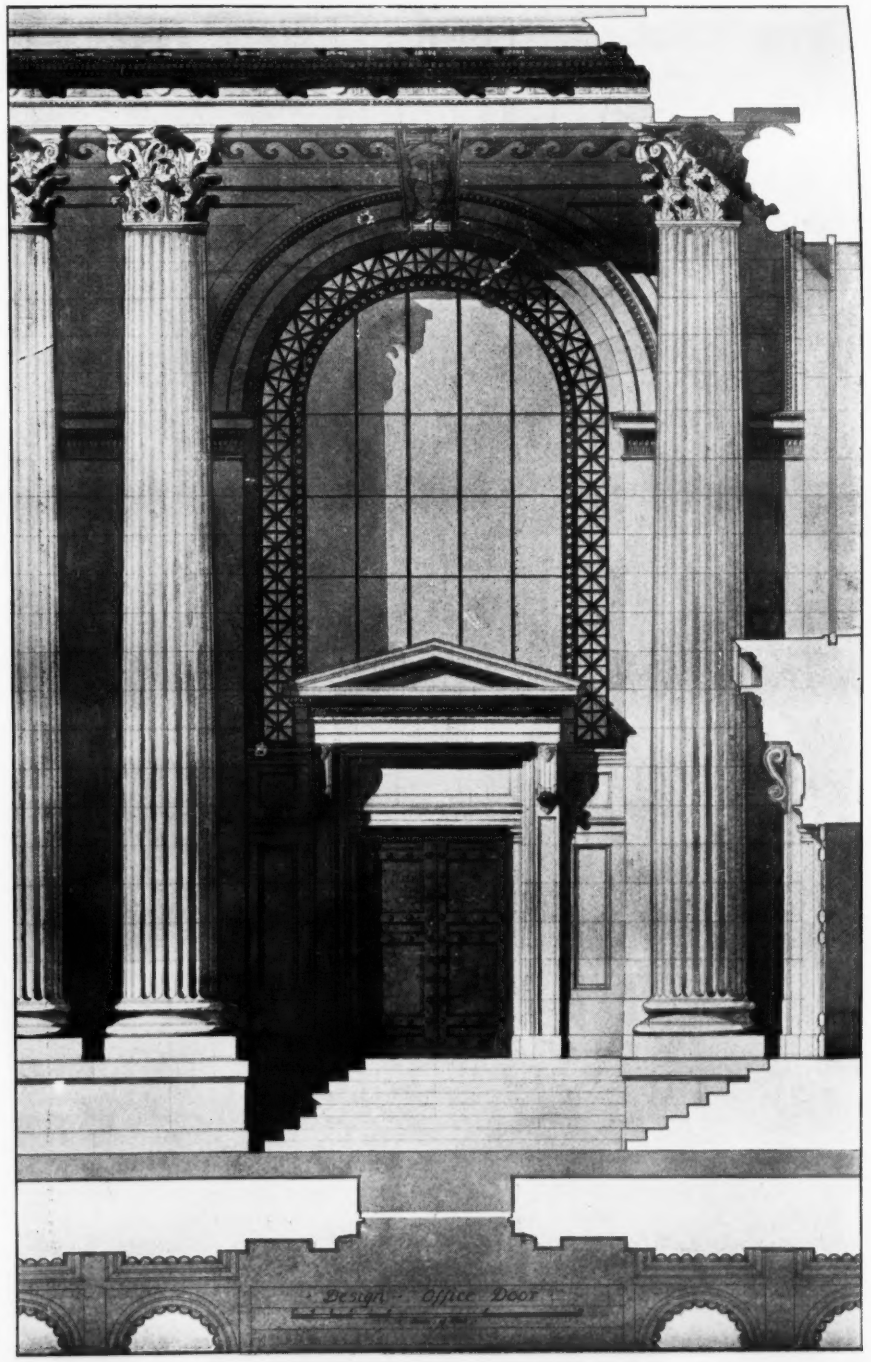


COMPOSITION OF DETAIL.—BY Mr. O. NEWBOLD.



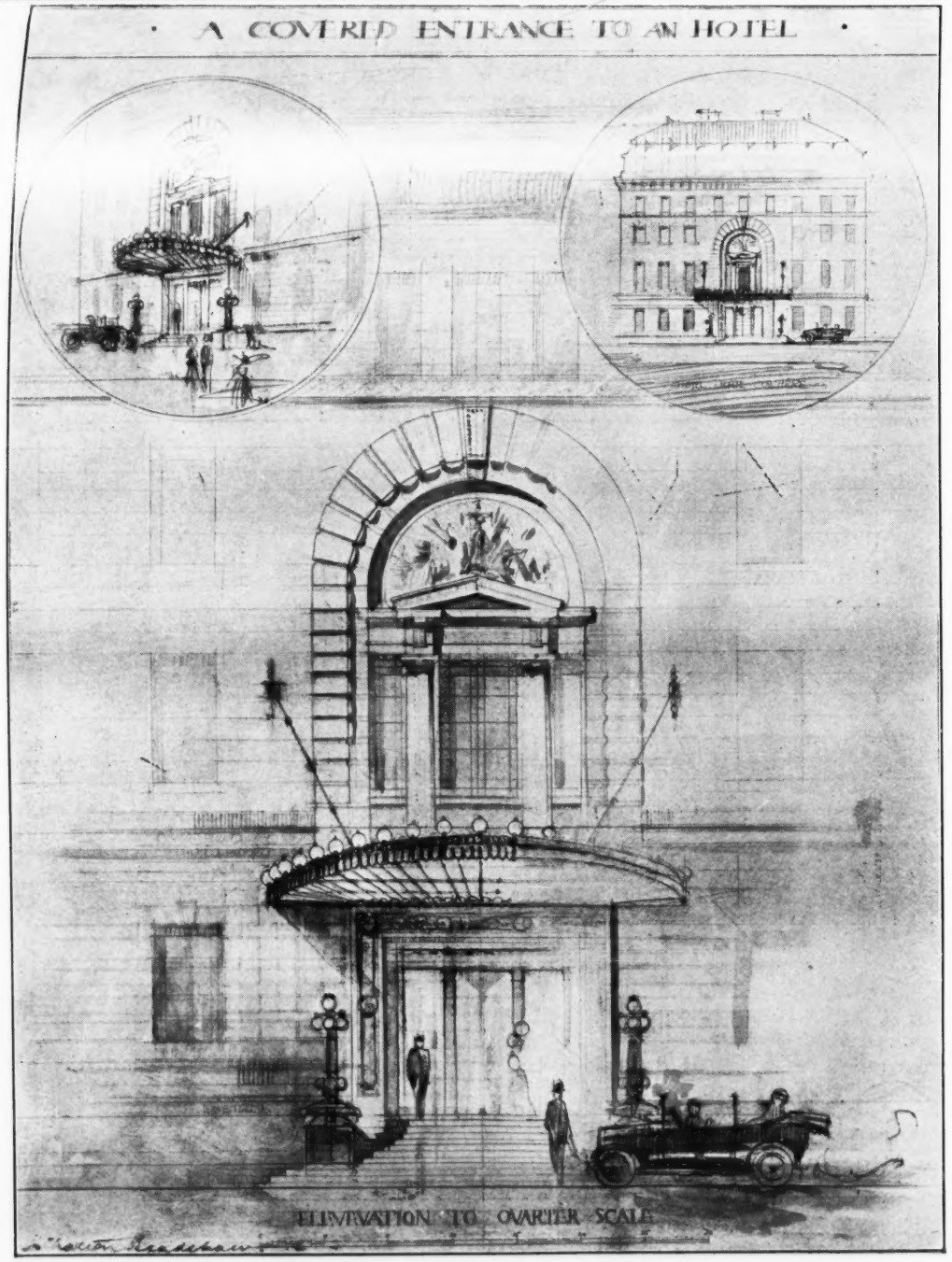
Martin, Hood and Larkin, 8 Great Newport Street, London, W.C.

DESIGN FOR ENTRANCE DOORWAY TO BLOCK OF OFFICE BUILDINGS.—BY Mr. A. J. K. TODD.

STUDENTS' WORK, LIVERPOOL SCHOOL OF ARCHITECTURE.

A COVERED ENTRANCE TO AN HOTEL

ENTRANCE TO OFFICE BUILDINGS



Sketch Design for an Hotel Entrance.—By Mr. H. C. Bradshaw.

Martin, Hood and Larkin, 5 Great Newport Street, London, W.C.

„Design for Entrance Doorway to Block of Office Buildings.—By Mr. F. O. Lawrence.

STUDENTS' WORK, LIVERPOOL SCHOOL OF ARCHITECTURE.

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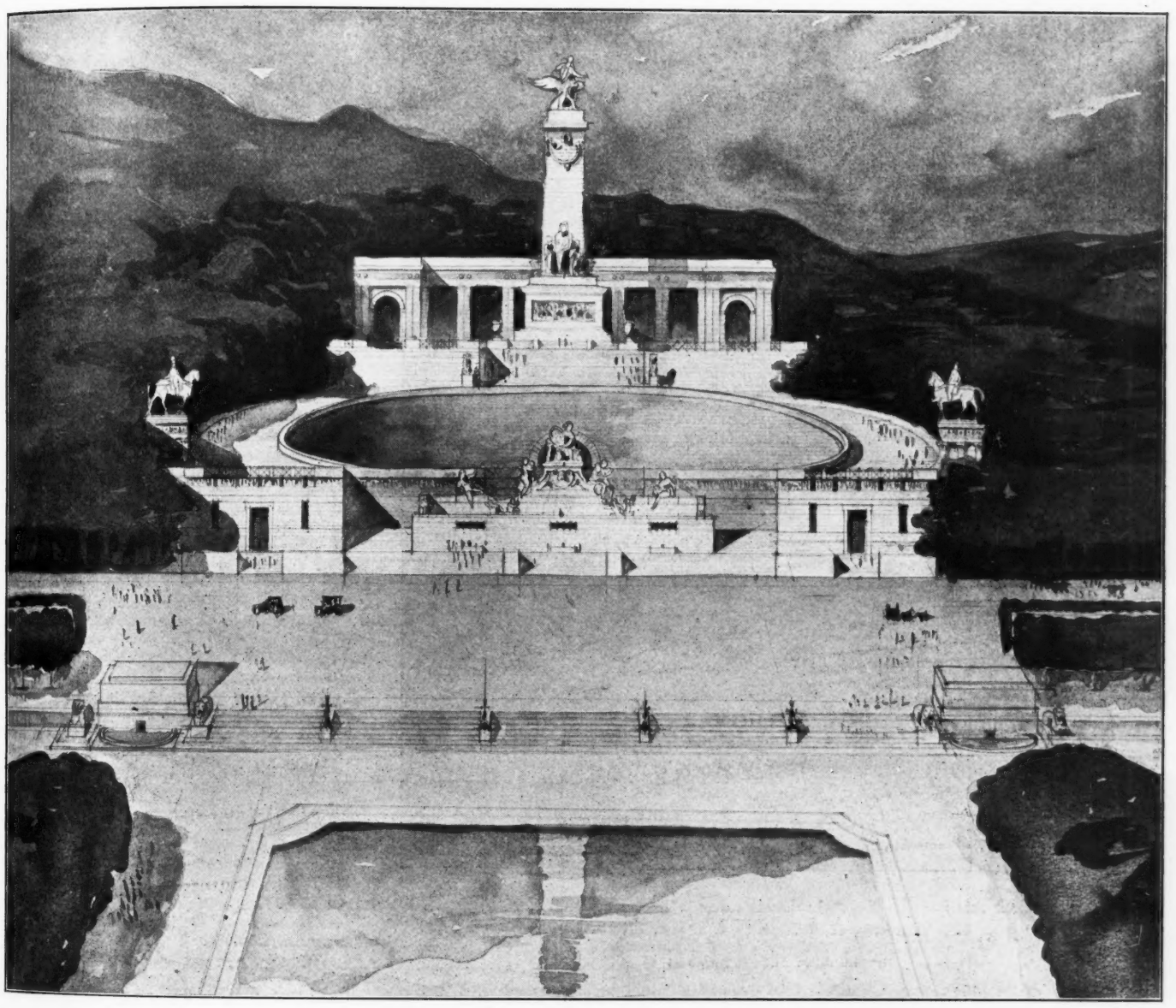
SCHOOLS OF ARCHITECTURAL EDUCATION.



The Architectural Association School: Design for a Monument to Commemorate the bringing of Water to a Town. Perspective.

By Mr. John Eadred Lutyens.

THE ARCHITECTURAL ASSOCIATION.

THE subject of architectural education has, like everything else of late years, undergone great changes, whether for the better or worse remains to be proved by time.

The day school system has now weathered the first lean years; all large towns have developed their own. A two or three years' course in a day school is equal to about ten years of evening schools, and the student then enters an office with a receptive mind, a trained memory, and an eye for design and composition, probably a terrific bump of inquisitiveness, and a thorough nuisance to all assistants: "Why, the fool can't trace on linen; he doesn't know what French chalk is for!" Higgins has superseded sticks, thank goodness; they can't start him on that, so perforce he is put on to ½-in. details of doors and staircases—a great drop from monumental town planning and Prix de Rome subjects. A year or two at this is called "office routine." He hears about ancient lights or party walls, perhaps has the privilege of making a survey or two.

But the architectural school prepares the man to seize his opportunities. It teaches him design and construction, and shows him the possibilities of the most prosaic problems.

The old method is reversed. Instead of having to find out for himself what is good, and why, he is from the first led to good examples. Nothing but gems are offered to his ken; he begins at the end, as it were, and, without knowing it, is made familiar with treasures. The choicest examples of the past, from the Greek period to the nineteenth century, are put before him. The corn is winnowed before it reaches him. The student is kept to academic design; he can blossom into Neo-Grec or L'Art Nouveau afterwards if he likes, and they will both be the better for a good foundation.

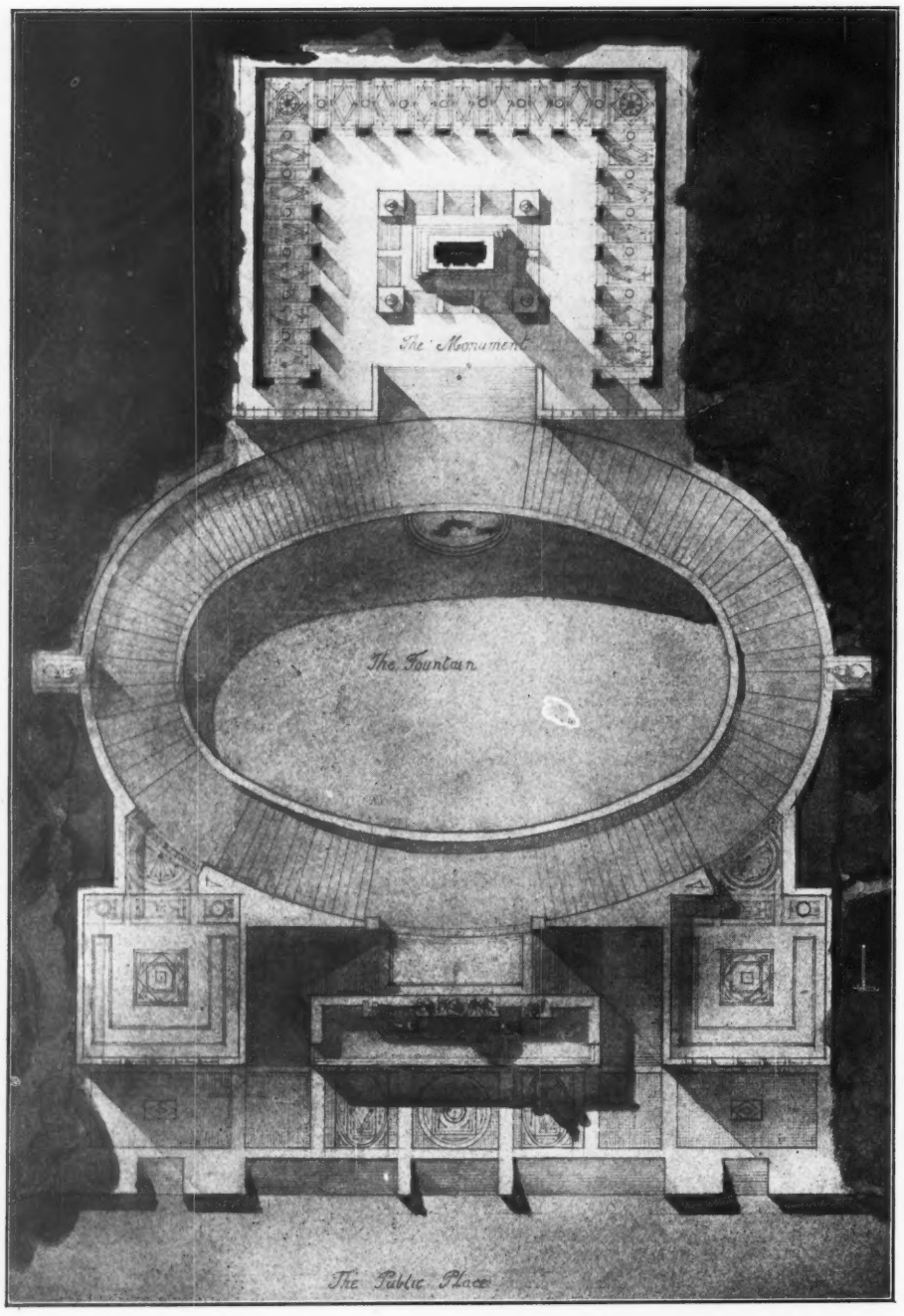
He is taught the use of books. Books are the architect's brains. He lives by his books; his knowledge is measured by his well-thumbed library. They are the fountain of his ideas and the well of his inspiration. The modern student has every good building at his finger-ends; he knows where to find material and ideas for all his requirements, and he is trained not to misuse them. He is a student only so long as he needs to seek knowledge; when he can dispense with books he is an architect fully fledged (the books are there, he is not conscious of it, that is the difference). A good library is, then, essential to a school.

The comparison of photographs and line drawings of existing buildings will give a good idea of the value of voids, solids, and projections, but with new buildings photographs are not available, and the projection of shadows becomes a necessity. With an academic training no passing fashion can be unduly favoured, and the changing of fashion will leave the training undisturbed.

Minute details of ornament used in all periods are traced back to their beginnings, and some idea of their evolution and gradual conventionalisation obtained.

The Architectural Association School possesses distinct advantages in its administration. It is governed by practising architects in the interests of architecture without the restraint of laymen, and has a list of distinguished visitors.

The training is cosmopolitan, ranging over the whole field of architecture. Its reputation as a training-ground for our national domestic architecture is second to none, and its new Third-Year Course embraces monumental design. The Third-Year Certificate



The Architectural Association School: Design for a Monument to Commemorate the bringing of Water to a Town. Plan.

By Mr. John Eadred Lutyens.

exempts the students from the Intermediate Examination of the Royal Institute of British Architects and also admits him to the Royal Academy Schools.

Its list of lectures and lecturers is wonderfully complete, and subjects are taught by men who have made their names as specialists in various classes of work. Among its masters are included all shades of architectural opinions—classical scholars and draughtsmen, students of the École des Beaux-Arts and of the Royal College of Arts.

The School possesses a very fine library, which is added to each year.

The common and members' rooms are much used, and most architectural papers are available.

Architecture is a wide subject, and only facts and principles can be taught. Of necessity, many things go to the wall. Garden design and town planning, for instance, are fascinating subjects to the student, but so neglected in the stress of modern life that they are fast becoming specialised subjects. This should not be. An architect should be capable of tackling everything, and an academic training lays the foundation of all his future work; let him specialise later as much as he likes. It is half the battle to make the students keen and to get a spirit of camaraderie in the studios, a spirit of rivalry and competition.

Preliminary Training.

The question of architectural training has been, and still is, the subject of much discussion among architects, but the recommendations of the Board of Architectural Education may be said to have established the principle of a preliminary training in a school of architecture for students before entering an architect's office.

After careful consideration of the best means of providing this preparatory training, the Architectural Association has instituted, with the approval of the Board of Architectural Education, a course of three years in its Day School. The completion of this course satisfactorily will entitle the student to a certificate exempting him from the Intermediate Examination of the Royal Institute of British Architects, and, in order to prosecute his studies afterwards with the greatest advantage, he is advised (1) to enter an architect's office as a pupil or improver; and (2) to enter the Royal Academy School in order to continue his study of Advanced Architectural Design in the Architectural School there in the evenings.

To facilitate their progress in this direction the Royal Academy has agreed to admit, without the usual examination for probationers, except in the subject of Design, all students of the Architectural Association who have obtained their certificates after three years in the Day School. The curriculum of the Architectural Association School is framed with a view to facilitate its students entering the Academy Schools for final training in Design. In this way a continuous and systematic course of architectural training is provided, and one which fully takes into account and provides for the fact that the requirements of the day, and notably the conditions of the Final Examination for membership of the Royal Institute of British Architects, necessitate a high standard of training for students in Architecture. It is to be observed that proficient students are admitted, at the discretion of the Royal Academy Visitors, direct to the Upper School, and those who have passed through the Association School should have no difficulty in being admitted in this way.

The Association strongly recommends its students to follow the course above outlined, and would point out that by so doing they become eligible to compete for the various prizes of the Royal Academy which are only open to students of the Academy, and to derive the benefits of meeting and working with other students in the sister arts of Painting and Sculpture. The Royal Academy School is governed by the Royal Academy authorities, and the Visitors to the School who give instruction in Design are chosen from the following architect members of the Academy, viz.:—Sir Aston Webb, C.B., R.A.; Mr. John Belcher, R.A.; Sir Thomas G. Jackson, R.A.; Mr. Reginald Blomfield, A.R.A.; Sir Ernest George, A.R.A.; Mr. Ernest Newton, A.R.A.

The Royal Architectural Museum occupies the same building, and students have exceptional facilities for drawing from the valuable collection of casts contained in the Museum.

First Year's Course.

The studio exercises in Historical Design consist of small problems in the various styles. They are worked out from information acquired by the students themselves at lectures, visits to museums and old buildings, and by study at South Kensington Art Library.

The work on these visits and at the Library is under direct supervision, being organised so as to avoid any overlapping, yet leaving the student largely dependent on his own initiative and energy for the results achieved.

History Lectures.

The scheme of the lectures on Historical Design is as follows:—

1st Term: Introduction; Pre-Greek Building; Greek Architecture.

2nd Term: Roman Architecture; Byzantine Architecture.

3rd Term: Mediæval Architecture; Introduction to the Renaissance.

The aim of these lectures is to acquaint the student with the growth and development of the architecture of past civilisations. To demonstrate its origin from constructional necessities, climate, and environment: and to show in each case that its eventual perfection and acquisition of style was due to the intellectual capacity and craftsmanship of its authors no less than to their natural æsthetic instinct.

The studio exercises in Elementary Construction consist of small modern problems executed in specified materials. The subjects given will be of the simplest type, and simple direct design with due regard to fitness, scale, mass, and proportion will be insisted on.

Special attention will be given to drawing the various constructional details to a large scale, which will be studied first hand on buildings in course of erection. Visits to such buildings and to builders' yards and shops are made in connection with each subject concurrently with lectures given by the master.

Observation papers will be set after each construction visit to encourage and test a student's ability to take notes and sketch from memory.

Construction Lectures.

The scheme of the lectures on Elementary Construction and Materials is as follows:—

1st Term: Foundations, Brickwork, Simple Roof Construction and Tiling.

2nd Term: Carpentry, Compound Roof Construction, Joinery, and Plastering.

3rd Term: Masonry, Slating, Drainage, and Plumbing.

Perspective.

The practical method of setting up perspectives is taught early in the session; and all studio exercises are required to be drawn in perspective as well as in plan, section, and elevation. Thereby the design of a building is more quickly appreciated, and the important principle is engrained that it is the building and not the elevational drawing that is the first and last consideration.

Freehand Drawing.

Concurrently with the Historical Exercises each student will prepare several studies of ornament of the period under consideration. These will be drawn to a large scale from the casts in the Royal Architectural Museum or from the actual remains in the British Museum.

After a student shows ability to appreciate form and proportion, shaded studies in pencil, crayon, or colour will be made.

Second Year's Course.

Students are not admitted to this course unless they reach the pass standard of the first year.

The work of the second year is so arranged as to link up the general course of the first year with the specialised course of the third year. It falls into two categories:—

(1) Historical Study.
(2) Modern Construction.

Historical Study.

The problems set will include advance studies in Greek, Roman, and Renaissance Architecture. In these a student will realise the meaning of architecture and its relation to construction in the past, and will thereby come to readily know the qualities, both practical and æsthetic, necessary to architecture of the present day. The problems will each be worked out in conjunction with lectures and visits and will form a basis for applying the broader principles of design in both mass and detail.

Historical Lectures.

The scheme of lectures on Historical Design, given by the Master, is as follows:—

1st Term: Greek Architecture.
2nd Term: Roman Architecture.
3rd Term: Renaissance Architecture, the styles of the leading Masters.

Second-year students will, in addition to the above, attend the following evening lectures:—

1st Term: Grecian and Roman Architecture, by Mr. Theodore Fyfe, F.R.I.B.A.
2nd Term: Mediæval Architecture, by Mr. Aymer Vallance.

Mediæval Studies.

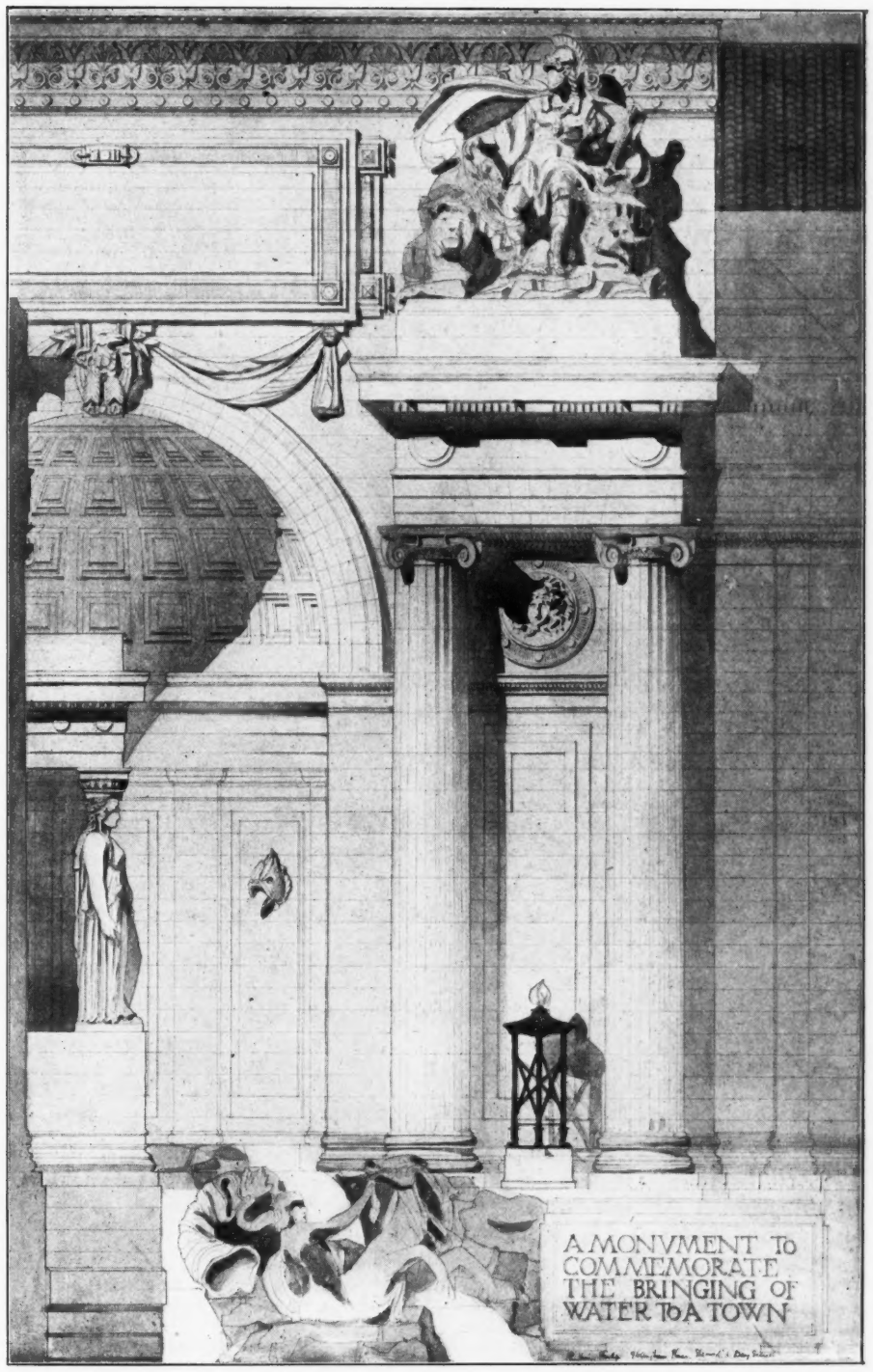
The study of Mediæval Work will form an imperative part of the course, and will consist of measured studies executed in the vacations, as it is recognised that no better method of study can be devised than that of measuring and sketching old work. These studies will be arranged so as to form a complete sequence, and students will be required to write a thesis on the period studied in each vacation at the commencement of the following term.

Modern Construction.

The subjects set will include practical problems likely to be met with in town or country practice, and a student will be required to produce a complete set of working drawings of each building. In connection with each subject visits to buildings of a like nature, both finished and in course of construction, will, as far as possible, be arranged, and lectures will be given on the method of tackling each problem as a design, as well as demonstrations by practical craftsmen on the structural details.

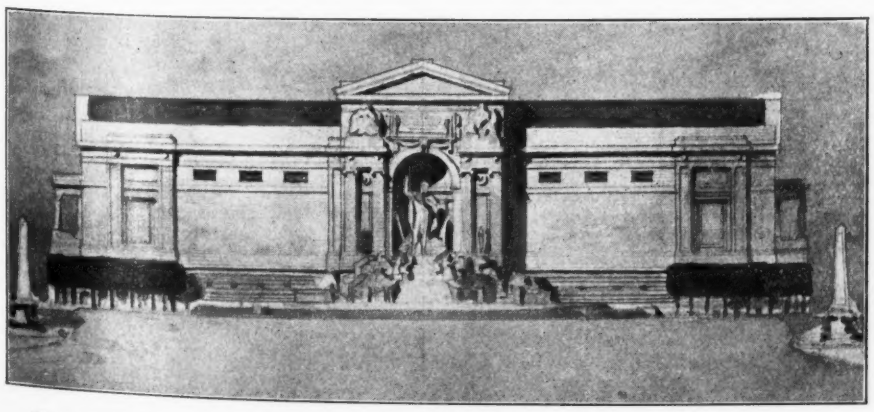
Workshop Demonstrations.

These will include a course on Brickwork, Masonry, Carpentry, and Plumbing, the three former courses being given on the premises, while the plumbing demonstrations will take place in the workshops of a well-known plumbing company.



The Architectural Association School: Design for a Monument. Detail.

By Mr. R. Haig Philp.



The Architectural Association School: Design for a Monument. Perspective.

By Mr. R. Haig Philp.

Lectures.

In addition to the lectures and demonstrations, during the day, students will attend the following evening lectures:—

Elementary Physics, Formulæ and Calculation, by Mr. C. E. Varndell, A.R.I.B.A.

Elementary Details of Building Construction, by Mr. C. E. Varndell, A.R.I.B.A.

Draughtsmanship.

A higher standard of drawing is required in the second year, and in all studies, both historical and modern, the student is taught to think out his building by the aid of perspective and rendered drawings, and frequently by modelling.

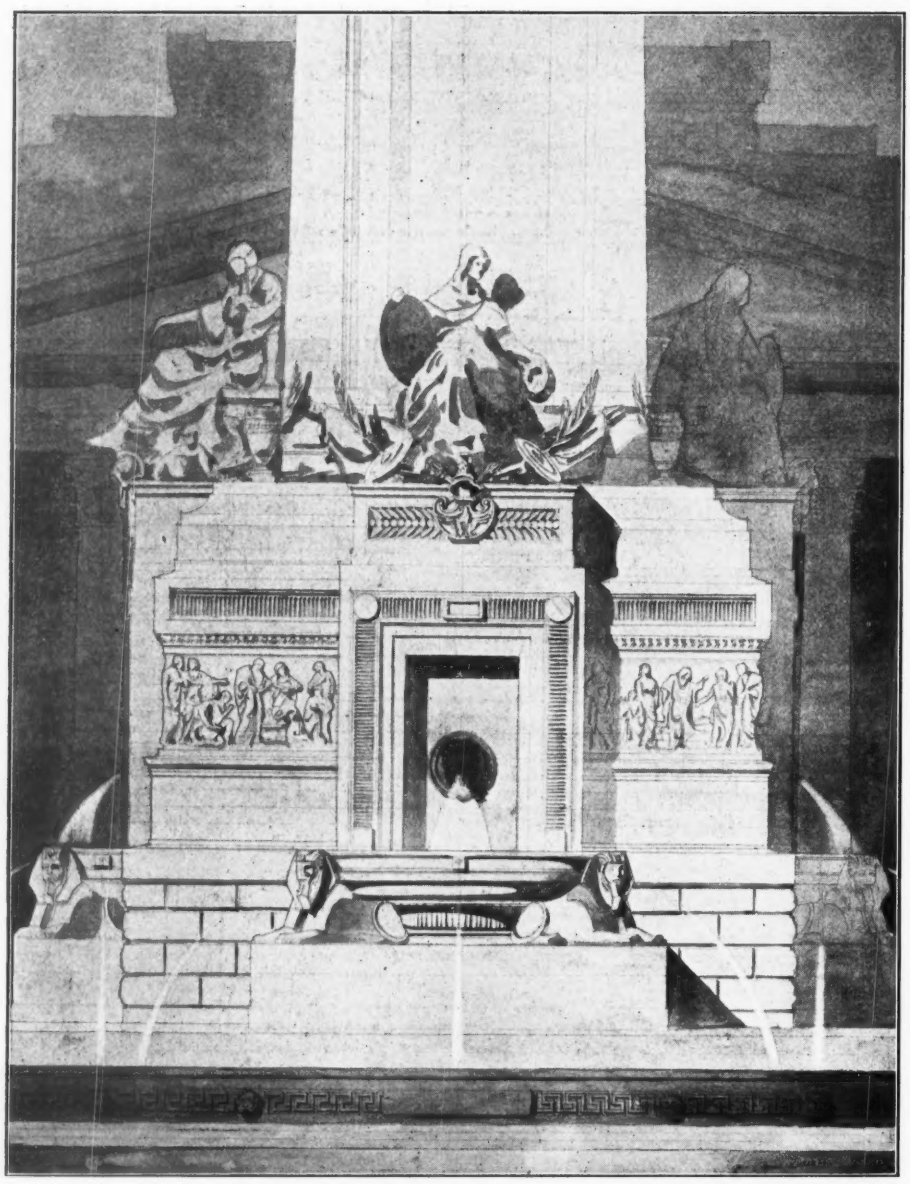
Freehand Drawing and Life Class.

Freehand Drawing from the cast is continued in the second year, special attention being given to figure work, when the student has attained sufficient proficiency.

The most advanced students will be admitted to the Life Class under Professor Alston.

Third Year's Course.

The students of the Third-Year Day School will be expected to attend the Life Class, and attention to Freehand Drawing and particularly —at this stage—to Figure Drawing from Life is of great importance.



The Architectural Association School: Design for a Monument to Commemorate the bringing of Water to a Town. Detail.

By Mr. E. Cecil Davies.

Studies in modelling either the whole scheme to a small scale or portions of the design in detail will be done in connection with design subjects in the studio.

In effect the Third-Year Course will carry on the student's training in Design, Draughtsmanship, and Theoretical and Practical Knowledge to a stage considerably in advance of the standard now required for the R.I.B.A. Intermediate Examination.

Evening School.

The Evening School offers a complete course and also carries on the work of the Day School fourth year, covering the usual period of a pupil's articles; provision is also made for those students who may not have passed through the Day School, but who are already articled. These preparatory courses are arranged on lines parallel to those of the Day School, but with such modifications as are necessary to the greatly reduced time available.

The student, on the completion of his Second-Year's Course in the Day School, if he does not intend to complete the Day School Third-Year Course should attend four evenings a week in term-time at the Evening School, where he can pursue his studies under the direction and advice of the Master for a further period of two years.

On the completion of his articles, at the end of the fourth year's work, he should be well equipped for further independent study on his own account.

Prizes of a total value of £234 are given by the Architectural Association. There is a Travelling Studentship of £50 and the Jarvis Scholarship of £40.

The Athletic Club.

The Athletic Club was founded in 1906 for the purpose of encouraging outdoor games and athletic sports. The promoters realise that no student can be expected to produce his best work unless he is physically as well as mentally fit, and that no better form of relaxation from his ordinary work can be found than by playing matches with members of other professions. The club ground is at Boreham Wood, Elstree.

ROBERT ATKINSON.

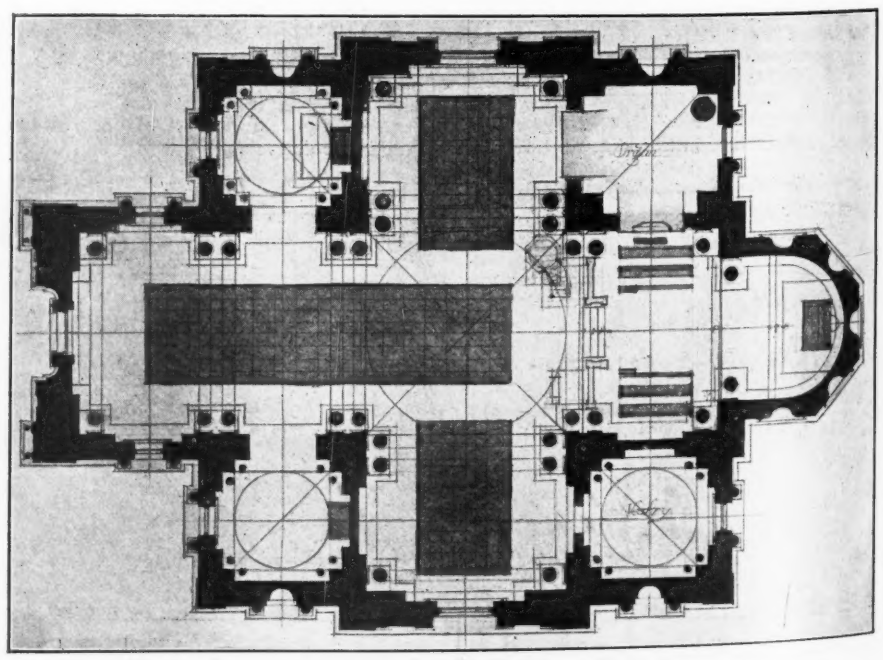
THE MANCHESTER SCHOOL OF ARCHITECTURE.

THE Manchester School of Architecture is conducted under the joint auspices of the University and the Municipal Schools of Technology and Art, and is controlled by a Committee composed of representatives of these bodies and of the Manchester Society of Architects. Classes in the various branches of study in the architectural courses are held at Owens College, the Municipal School of Technology, and the School of Art, which three institutions are situated within easy distance of each other. From the teaching staffs of each of these are drawn the masters of the architectural courses, and the School is under the direct control of the Professor of Architecture, who is the Director of the School.

Degrees of B.A. and B.Sc. Tech. with honours in Architecture are granted by the University, and the normal length of the courses qualifying for these degrees is three years. Students taking either of these degrees are exempted from the Intermediate Examination of the Royal Institute of British Architects. The prescribed Matriculation Examination must be passed before entering on this course, and students must have reached the age of sixteen.

In the first year the general University subjects set by the Faculties of Arts and Technology are taken, and these, with lectures on Building Construction and History of Architecture, occupy the greater part of the session. Some considerable time, however, is available for Freehand and Architectural Drawing. In the following two years the whole of the student's time is devoted to the study of architecture. History of Architecture, History of Classical Sculpture, and Italian Mural Painting, Building Construction, Testing of Materials, Sanitary Science, Freehand Drawing, Drawing from the Antique and Life, Modelling, and Design are the subjects of study. In the second year the elements of design are taught by exercises in composition and simple planning, and the study of minor features. Towards the end of the session some simple subjects are worked out in complete detail. In the third year special subjects are set throughout the session, and the work of the final term is confined entirely to the subject specially chosen by the external examiner for the final degree examination.

During the whole course there are classes for measuring and sketching existing old buildings chosen by the Director of the School, and the classes are supervised by a member of the teaching staff. Studies are made as complete as possible, so that the whole cohesive value of



Manchester School: Design for a Domed Church. Plan at Ground Level.

By Mr. G. B. Howcroft.

the design may be thoroughly appreciated by the student. The habit of "scrap" studies of features, so commonly indulged in by young students, is discouraged. It is considered to be better for him to measure one good example completely, and then to design a building whose features can be directly borrowed from the measured study, than for him to measure and sketch details of various buildings from which he may attempt to produce some original composition. His building instinct is not far enough advanced for the latter method, and it is on this principle that limitations are made. The necessity for a sound basis upon which to establish architectural understanding is paramount. In the combination of the several branches of study it is necessary to collate them in such a manner as to keep the advancement of the student in its proper balance. Lectures bear directly on the work of the studio, and are so arranged that advancement in the various branches shall run concurrently throughout the session so as to uphold the student's appreciation of architecture in the due proportion of its several dependencies.

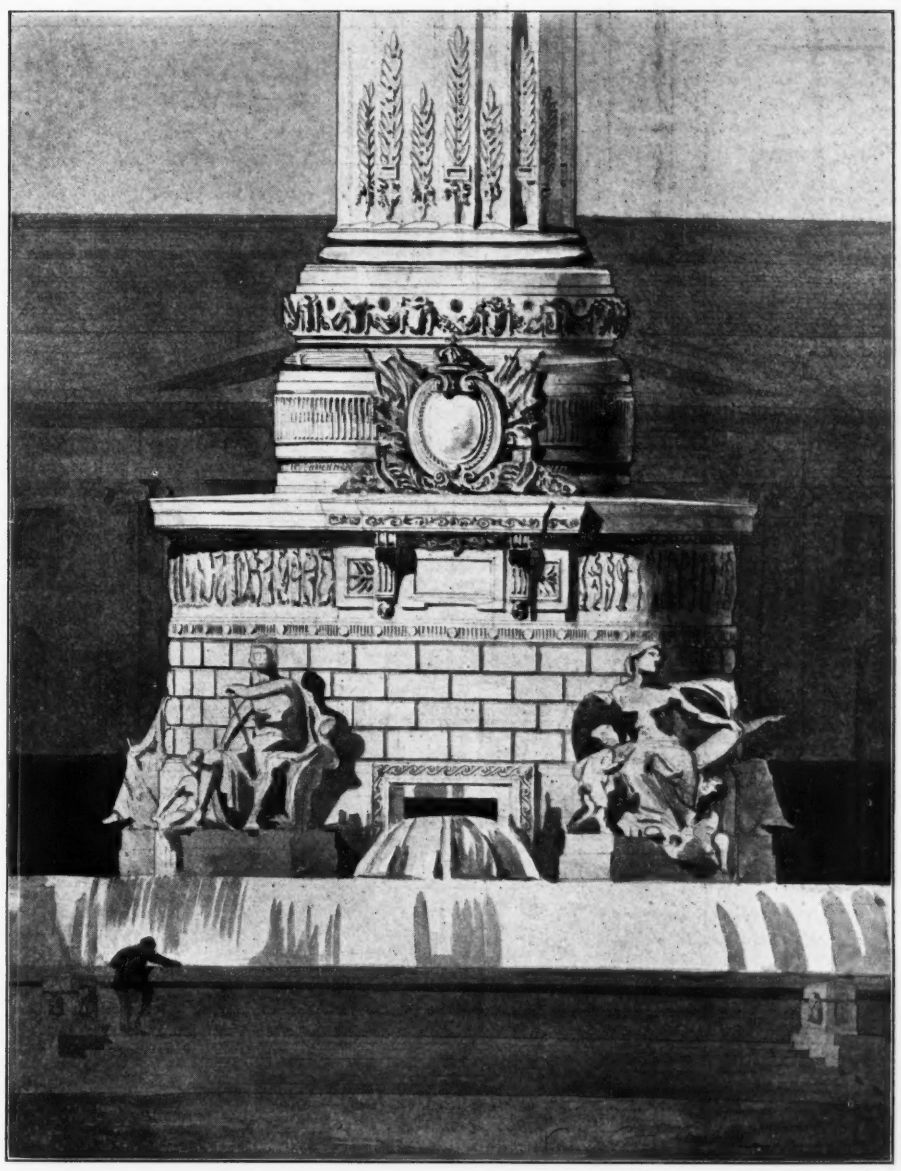
The Building Construction Courses are made as full as time will allow. The classes occupy four hours per week throughout the whole three sessions, and instruction is given on the application of the various materials generally in use at the present day. The time is occupied by lectures and drawing, and students are instructed in the production of full-size details of all building trades. Calculations in steel and ferro-concrete construction and full-size details are the subjects reserved for the later half of the course. It is recognised that no school can fulfil its mission if modern systems of construction are not seriously taught, and there are advanced classes in design arranged for study in these materials.

The first year's work deals with simpler problems of building materials. Second year's work is more advanced and deals with steel construction, while in the third year steel and ferro-concrete construction are specially taught. A certain portion of the final session is also spent in the materials testing laboratories.

History lectures, while aiming at teaching a knowledge of characteristic features, emphasise more particularly the value of style, through its constructional problem, governed by materials and the more general rule of place and people.

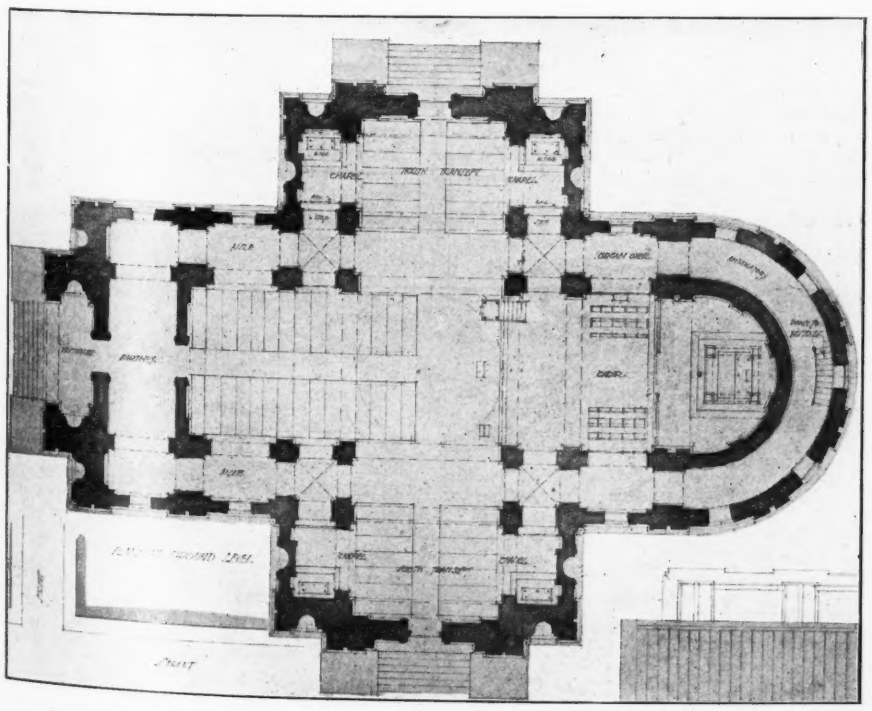
In the work of the studio no subject of design is considered to be studied until it has undergone the test of ½-in. and full-size details, and the lessons of building construction lectures have been applied to the design.

The utilisation of the limited time available for the whole courses, to the best advantage, is a problem which receives careful consideration in all branches. The time which is set aside for drawing is as extensive as the courses will admit. A high standard of draughtsmanship is reached by the students, who are, however, not encouraged to waste their time in useless elaboration. Throughout the first and second years' courses Freehand Drawing from the casts in the museum of the School of Art and Architectural Drawing fill up the whole period. In the third year, students take courses of Drawing from the Antique and Life, and also courses of Modelling in Clay.



The Architectural Association School: Design for a Monument. Detail.

By Mr. R. Stuart Wallace.



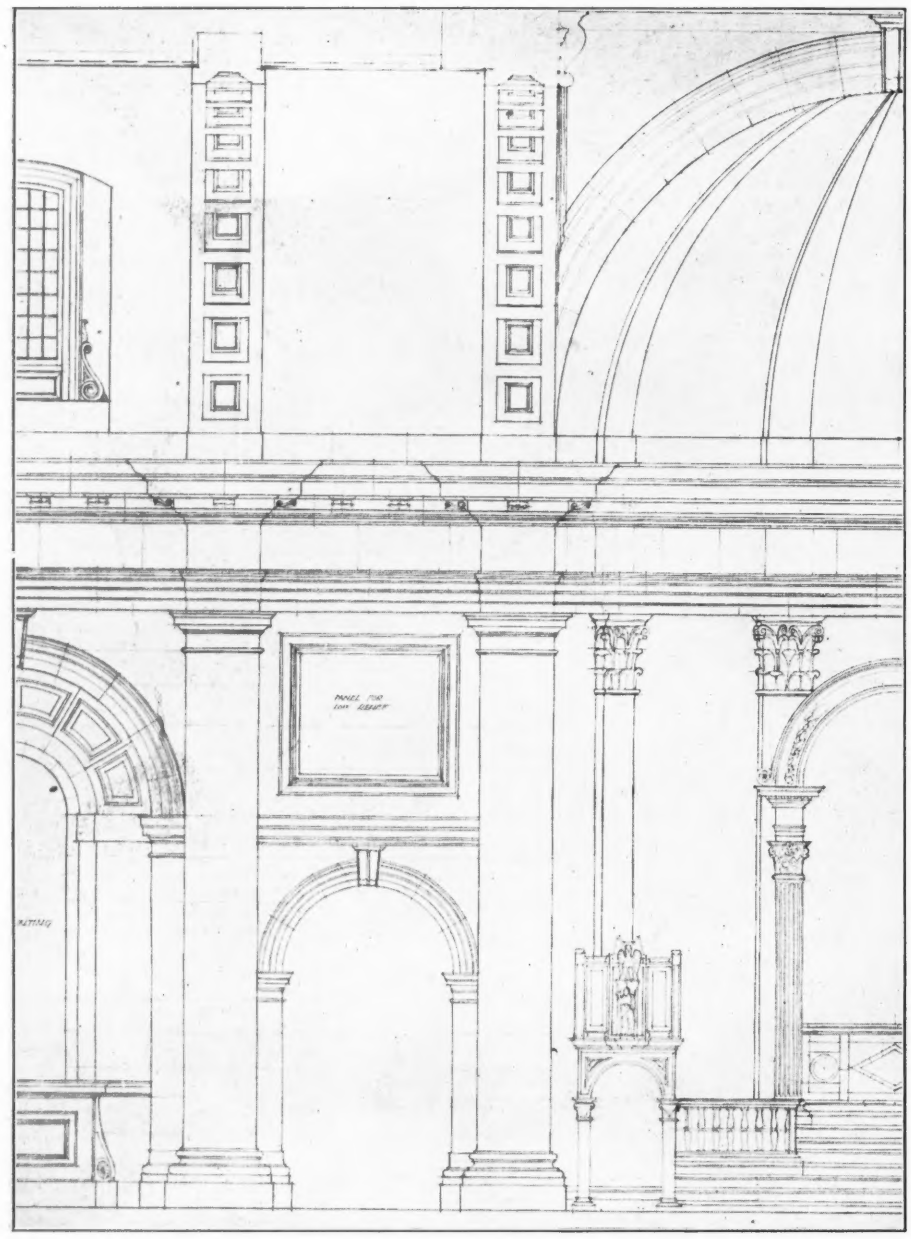
Manchester School: Design for a Domed Church. Plan at Ground Level.

By Mr. J. B. Teasdale.

It is not claimed for the School that it can in the three years turn out an architect; the more practical part of his training must follow from his experience in an office. What is aimed at is to provide the student with a sound foundation upon which to build his architectural future. It is in this particular that properly-organised school training can claim to be of special value, bringing as it does before the student the habit of serious criticism, without which no good work can be produced.

The advantages of a school the constitution of which combines the work of Owens College, the School of Technology, and the School of Art are various. In Owens College and the School of Technology students of architecture work in close association with students of engineering. The extensive materials testing laboratories are open to the students, and classes in materials testing form part of the course.

In the School of Art, both in the Modelling and Architectural Drawing Classes, students of Sculpture and Decoration combine with architectural students in the problems set, and the special knowledge of each becomes mutually beneficial. The sculptor benefits with regard to the architectural setting of his piece, and the architect has the advantage of the special training of the sculptor and decorator in considering the enrichment of his building. Closer relationship and better understanding of each other's work is established, much to the advantage of the architect in his future career. The museum of the School of Art, in which there is a fine collection of architectural casts and



Manchester School: Design for a Domed Church. Part Detail of Interior Section looking East.

By Mr. J. B. Teasdale.

other exhibits, is part of the studio of the Architectural School. An additional studio and lecture-room will shortly be built, which will add very greatly to the efficiency of the school accommodation. The excellent general libraries of the three institutions, and also of the Manchester Society of Architects, as well as the departmental libraries, all of which are accessible to the student, form a collection as complete as can be found in any school.

Scholarships which have been gained by students of the School, allowing facilities for study and travel, have added greatly to the completion of the courses. Two students who have graduated with first-class honours this year have gained scholarships, and are now in Italy, commencing a four-months' term of study under the personal supervision of the Professor of Architecture.

Besides the courses for degrees there is also a certificate course, covering a period of three years, the work of which is somewhat similar to the degree courses. Students who pass first-class in this course are also exempted from the Intermediate Examination of the Royal Institute of British Architects. Special courses also undertake the work required for students who are in offices, and who wish to qualify themselves for the Royal Institute of British Architects' examination.

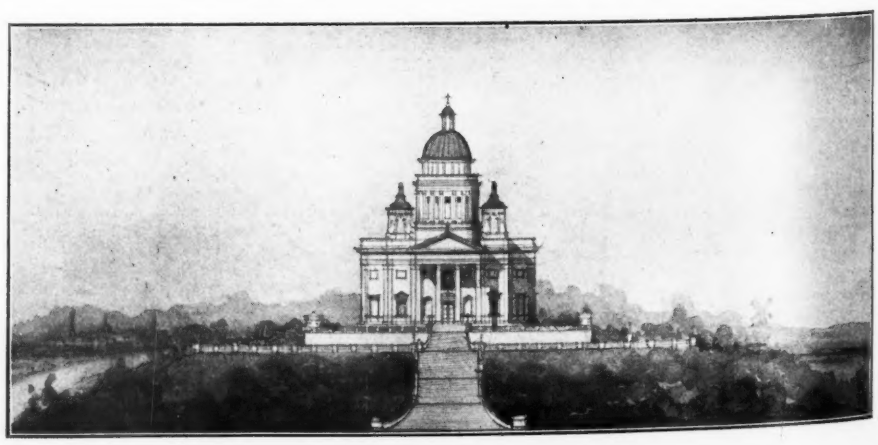
In the evening classes there are courses for Elementary and Advanced Designing and lectures on Building Construction (Steel and Ferro-Concrete) and History of Architecture which can be attended by any student not taking the other courses. In addition to the ordinary lectures given by members of the staff of the School courses are given each year by distinguished lecturers on special subjects, amplifying the regular courses as set down in the curriculum. To the Construction lectures may be added a course on the Æsthetic Use of Materials in Design, with special consideration of their limitations, and to the regular History course may be added a course on the works of the great masters of the Renaissance, treated individually. Advanced Designed Classes, taken by graduates and advanced students, are specially arranged to suit the standard of the students.

The illustrations shown in the Plates and letterpress are the work of third-year students (who graduated last June) during the last term of the session. The subject set was a domed church, and, keeping in view the fact that the students had only the advantage of something like two full years of architectural study, the scheme was chosen so that complications in planning should, in a measure, be reduced. The time allowed for the work, from the date of issue of the conditions, was two months, working thirty hours per week, and completed $\frac{1}{8}$-in. scale drawings with $\frac{1}{2}$-in. and full-size details were produced in that time. The subjects worked out in the first two quarters of the session included the western façade of a city church in the Renaissance style, a large country house in the Georgian manner, a classic portico, etc. The method of instruction is by criticism and suggestion. Students produce rough preliminary sketches to $\frac{1}{8}$-in. scale, and, after these have been considered, rough $\frac{1}{2}$-in. sketch details are set up. Not until these have been thoroughly studied are the finished drawings commenced. It is not the aim of the School to establish what is understood as "a school of style." The student's preference for a phase of style or the particular precedent upon which he founds his design is preserved, if it is considered to be suitable, and upon that basis he receives his instruction. It is, however, strongly emphasised that in no instance must the student consider the design from the point of view of elevation alone. The development of elevation must come as a result of the plan, and whatever monumental quality may be aimed at must be considered from the point of pure construction and legitimate expression.

In elementary architectural education, such as a three-years' course comprises, no attempt is made to encourage departure from tradition in its broader sense. The student is not, as a rule, in a position to judge in this matter, and it is not for him at this stage to consider originality, apart altogether from the impossibility of receiving instruction in it. The grounds of criticism in such a system become far too complex in their individuality to be adopted in elementary schools of architecture such as are in vogue in this country.

A. C. DICKIE.

[Articles, with illustrations, on the Liverpool School of Architecture, by Professor Reilly, and the First Atelier, London, by Mr. H. V. Lanchester, are given in another part of this issue, commencing on p. 217. An article on University College School, by the Secretary, Mr. Seton, will also be found, on p. 222.]



Manchester School: Design for a Domed Church. General Elevation.

By Mr. W. O. Jones.

TOWN-PLANNING SCHEMES.

Authority has been given by the Local Government Board for the preparation of a town-planning scheme in the district of Hazel Grove and Bramhall, where the area to be used is about 1,728 acres. A scheme is also being promoted in Hunslet to occupy an area of about 410 acres, the ground being partly in the rural district and partly in the city of Leeds. The Sheffield Corporation has received authority to make a town-planning area for the Ecclesall, Abbeydale, and Norton Woodseats district.

THE BUILDING TRADE.

TRADE DISPUTES.

THERE are signs of a recrudescence of industrial unrest in many quarters, but it is earnestly to be hoped that a period of active warfare will not be experienced in this second half of 1913. The trade activity of 1912 was checked by continuous disputes, and in the first six months of that year 37,444,200 working days were lost owing to trade disputes. The first six months of the current year have been comparatively peaceful, and the loss in working days has been but 5,149,100, whilst rates of wages have in the same period increased three times as much as they did in the first six months of 1912.

The building trade, despite a period of prolonged depression, have refrained from entering into the militant arena hitherto, and have arranged their differences without recourse, as a rule, to extreme measures, but this year there has been an increase in trade disputes involving a cessation from work, and in the first six months 19,465 persons have been involved in disputes, as compared with 2,570 in the first six months of 1912, and the loss of working days has been 351,000, as compared with 39,000.

It will be a great misfortune if the excellent relations which have existed between employers and employed in this trade during a long period of depression become interrupted now that there is some prospect of better conditions prevailing, and, *à propos* of the recent strike in connection with the new building in Piccadilly of the Strand Hotel Company, we venture to make a few observations on strikes in general.

We have always recognised the useful functions performed by trade unions, but the strike to force a non-unionist to join a union, or to prevent a non-union man from being employed at trade union rates, is a weapon extremely dangerous to those who use it.

It may be necessary where non-union men are being employed in violation of conditions accepted and applied to union men, but where none of these conditions are being broken, and the sole cause of complaint is the employment at all of other than trade union men, the element of coercion steps in, and few, if any, causes are ever advanced by intimidation.

Non-unionist workmen are more likely to join the unions by being led to perceive that the trade unions are able to secure better conditions for their members, whilst leaving them free from irritating restrictions, than they are by any form of coercion, and the unions have a sufficiently strong position to allow their policy to speak for itself by appealing to the self-interest of the working classes. The strike recently has been resorted to on far too slender pretexts, and it is injuring the position of the unions by depleting their reserve funds, and this depletion of their funds must hinder them in exercising their functions.

It may be conceded that it is annoying to trade unionists to see non-unionists participating in the conditions secured by unionist effort, but nevertheless the strike is not the remedy for this cause of complaint, and cohesion in the long run can only be attained by the practical demonstration by the trade unions of the advantages of their system and an irresistible appeal to the men's self-interest.

With reference to the strike which has occurred amongst the painters and decorators, the matter is receiving the careful and constant attention of the London Master Builders' Association and the Master Decorators' Association. As to the threatened general strike in the building trade, inquiries show that the position has been greatly exaggerated. To say, as has been stated, that a strike in the building trade involving from 150,000 to 200,000 men may take place is misleading, for the members of the various unions have not taken any decision likely to bring about a general stoppage. Apart from the wages question, the aim of the unions is to attack the employment of non-union labour, and it is understood that this question was discussed at a recent meeting of the master builders. The cost of production in the building trade has increased greatly, and builders make no secret of what will eventually occur if they have to pay more for building materials and labour. The painters demand a minimum wage of 9½d. an hour. But the employers say it is impossible to grade all the men, for the reason that one man may be worth 6½d. an hour, while another may be worth a shilling.

COST OF ARBITRATION.

WE have received the following interesting letter from a correspondent:—

SIR,—May a few comments be allowed upon this subject in connection with the paragraph reprinted in your current issue from the *Builder* of fifty years ago? * Although the extract expressly limits its censure to arbitration "as a way to settle value," one can recall cases in which, not only for that but for other purposes, arbitration has been made little, if any, cheaper than law. But does not this arise from the half-hearted way in which it is usually accepted? In those cases with which architects are most familiar, we generally have the complete army of legal men and witnesses that we expect in a law court, and in technical cases we have the absurdity of special witnesses being examined, cross-examined at great length, and re-examined, merely to bring out points of which a complete previous knowledge has been the arbitrator's chief qualification for his post. That the arbitrator can to some extent curtail useless evidence does not much help the matter, for obviously he must avoid even an appearance of obstructing the statement of possibly relevant facts. It is also, unfortunately, true that much money is frequently spent through the endeavours of one or other party to "muddy the wells of inquiry."

Points of law let lawyers decide. But why should the lawyer be so extensively imported into cases in which the real issues are purely technical and of fact?

The writer has recently had to deal as arbitrator with a case in which the parties agreed, before asking the President of the R.I.B.A. to nominate an arbitrator, that no legal advisers should be approached by either side. As often happens, the facts were clear, and it is almost impossible that the award could have been made other than it was, even by an army of witnesses and all possible formalities; naturally the costs were very low. In another case, the full formal methods were followed by both parties, with the result that the case took three times as long as it need have done, and my costs alone were nearly equal to the sum actually in dispute.

May it not be urged reasonably that in technical arbitrations, where an expert is appointed as arbitrator, the aid of lawyers should be invoked only to deal with legal questions? The solicitor should nearly always be able to do all that is needed without calling in counsel. If this principle were followed, the time occupied and the number of people to be paid by the parties would be greatly reduced, and we should hear fewer complaints of the cost of arbitration. ARBITRATOR.

WAGES IN THE BUILDING TRADE.

CAMBRIDGE.—The threatened strike in the building trade has been averted, and new working rules have been signed by the masters and men. A prospective rise in wages is part of the agreement, to come into operation when present contracts are completed.

GLASGOW.—Mr. Robert Crawford has issued his award with regard to the wages of plumbers in Glasgow and district. As a result the rate of pay will be increased ½d. per hour (10d. to 10½d.) as from September 1.

GREENOCK.—Friction has again arisen between the plumbers and their employers in this district. At the conclusion of a strike some months ago the men were granted an increase of wages. In the interval the question of the by-laws has been the subject of negotiations between the parties. The situation became serious when the men intimated their intention to strike work if an arrangement satisfactory to them had not been reached. A communication from the employers suggesting a further conference in Glasgow was submitted to a mass meeting of the men. At the close it was intimated that the proposed conference had been agreed to, and that there would not be any cessation of work in the meantime.

KIRKCALDY.—The plasterers in this district have secured their demands. The standard rate of wages in Kirkcaldy was formerly 8d. per hour, and in the district outside the burgh 7½d. per hour. The men asked for a general rate of 9d. per hour, and this has been granted by the employers.

MERTHYR TYDFIL.—The Local Joint Demarcation Committee for this district, having failed to agree on the question of slating, the National Joint Demarcation Committee has been asked to decide the matter. The case will be heard on September 4.

OLDHAM.—A dispute has arisen between the employers and the labourers, and difficulty is being experienced with the plasterers, who are refusing to use materials supplied to them by non-union labourers.

SHEFFIELD.—Mr. Charles Doughty, the arbitrator appointed by the Board of Trade to consider matters in dispute between the masters and the slaters, has issued his award. Prior to the arbitration the masters agreed to an advance of wages from 9d. to 9½d. per hour, and a revision of the working rules. Slaters now come under the same rules as bricklayers, carpenters, and joiners, painters, and builders' labourers.

SPEN VALLEY.—The strike of plasterers, which had been in existence in this district for eleven weeks, has now been settled. The masters have granted ½d. per hour increase in wages (8½d. to 9d.), with a further ½d. increase next June.

PROPOSED NEW BUILDINGS AND OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works, at the time of publication, have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; L.G.B. for Local Government Board; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

Aberystwyth.—The T.C. have obtained Parliamentary powers for the erection of a permanent pavilion on the Castle grounds for the holding of the national Eisteddfod and other Welsh national meetings, etc.

Aldershot.—A scheme for the establishment of a public swimming-bath has been referred by the U.D.C. to the Building Committee.

Arbroath.—Public swimming-baths.

Barford.—The Banbury R.D.C. have passed plans for two houses for Brazenose College.

Barnoldswick.—Schemes are on foot for two new weaving sheds—one for 2,000 looms at Crow Nest, and one for 2,400 looms on the Hen House Estate.

Barry.—The Town Planning Committee have decided to make further inquiries as to land available for the erection of workmen's houses and the cost of building.

Bedlington.—The Blyth and Bedlington District Councils have tentatively approved of a scheme by the Surveyors of the two authorities for a new bridge over the Blyth of ferro-concrete, the estimated cost of which is £1,250.

Bentley.—The U.D.C. propose borrowing £2,500 for new offices, depôt, etc.

Birstall.—Plans passed:—Extensions at College Mills, for Messrs. W. Holton & Sons, Ltd.; new cowshed at Paradise Farm for Messrs. Douglas Lawson & Co.; and alterations to house in Nelson-street for Mr. S. Benson.

Bridlington.—The Board of Guardians have received the sanction of the L.G.B. for alterations at the Workhouse, to provide children's quarters, and have appointed a committee to consider the question of improving the infirmary.

Bromsgrove.—The Worcestershire E.C. have decided that a new infants' school for about 200 be built near Stourbridge-road Council School, and that a new school for about 400 children be provided on a site to be selected towards the south end of Bromsgrove. The L.G.B. have authorised the erection of houses for Workhouse children by the Board of Guardians, at a cost of £1,600.

Buckingham.—Plans of new houses at Twyford for Mr. Wm. Hurst, and at Marsh Gibbon for Mr. F. Carter have been passed

Burpham (Sussex).—New Church of England school.

Cambridge.—The L.G.B. have held an inquiry into the application of the Cambridge T.C. for permission to borrow £6,570 for the extension of the Infectious Diseases Hospital. The plans have been prepared by Messrs. Charlton & Sons, architects, of Croydon. The provisional order of the Corporation for the improvement of Downing-street has received the Royal assent.

* See our last issue, p 193.

*** See also our list of Competitions, Contracts, etc., on another page.**

RATES OF WAGES IN THE BUILDING TRADE.

THE following are the present rates of wages in the Building Trade in the principal towns of England and Wales. It must be understood that, while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur:—

——	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Masons' Labourers.	Bricklayers' Labourers.	Plasterers' Labourers.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Newcastle	10	10	10	10	9½	9	9	6½	6½	6½
Sunderland	9½	10	9½	9½	9½	—	9	6½	6½	6½
Darlington	9	9½	9	9½	9½	8½	7½	6½	6½	6½
Stockton-on-Tees	9	10	9½	10	9½	9	8½	6½	6½	7
Bradford	9½	9½	9	9	9½	9	8½	6½	6½	6½
Halifax	9	9	8½	8½	8½	8½	8½	6½	6½	6½
Hull	9½	9½	9½	9½	9½	9½	8½	7	7	7
Leeds	10	10	9½	9½	9	9½	8	7	7	7
Sheffield	9½	9½	9¼	9½	9½	9½	8	6½	6½	6½
York	9	9½	8½	9½	9½	8½	7½	6½	6½	6½
London	11½	11	11¼	11½	—	11	8 upwards.	7½	7½	7½
Brighton	8-9	8	8	—	—	—	—	—	—	—
Portsmouth	9	9	9	9	—	8	7¼	6½	6½	6½
Southampton	8	9½	9	8	—	9	8	6½	6½	6½
Maidstone	8½	8½	8½	—	—	8½	7½	5½	5½	5½
Bristol	9½	9½	9½	9½	—	9½	9	6½	6½	6½
Plymouth	8½	8½	8½	8½	—	8½	7½	5½	5½	5½
Bath	7½	7½	8	8	7½	7½	7	5-5½	5-5½	5-5½
Cheltenham	8½	8½	8½	8½	—	8½	7½	5½	5½	5½
Exeter	8	8	7½	7½	7½	7½	6½	5	5	5
Gloucester	7½	8½	8½	7½	7½	8½	7½	5½	5½	5½
Hereford	7½	8	7½	8	7½	7	6½	5	5	5
Stroud	7	7	7	7	7	7	6½	4½	4½	4½
Blackburn	10	10	9½	9	9	9½	9½	6½	7	7
Bolton	10	10½	10	10½	10	9	9	—	—	—
Liverpool	10½	10½	10½	10	10	10	9½	6-6½	6-6½	6½
Manchester	10	10½	10	10½	9	10	9½	6	6	7¼
Oldham	10	10½	10	9½	8½	9½	9½	6	7	7½
Preston	9½	10	9½	9	8½	9	8½	5½	6	6
Birmingham	10	10	10	10½	9	10½	9	7	7	7
Derby	9	9	9	9	9	9	8	6	6	6½
Leicester	9½	9½	9½	10½	9	9½	8	7	7	7½
Nottingham	10	9½	9½	10	9	9½	9	7	7	7½
Norwich	8	8	8	8	8	8	6½	5	5	5
Cambridge	9	8½	8½	9	8	9	7	5½	5½	5½
Oxford	8½	8	8	8½	8	8½	7	5½	5½	5½
Southend	9	9	9	9	Piecework	9	7	6	6	6
St. Albans	8½	8½	8½	10	8½	8½	7½	6	5½	6
Grays	—	10	10	—	—	—	8½	7	7	7
Cardiff	9½	9½	9½	9½	9½	9½	8½	6½	6½	6½
Swansea	9	8½	9	9	8½	8½	8½	6	6	6
Newport	9	9	9	9	8½	8½	8½	6	6	6
Chatham	8	9	8½	9	9	8½	7	5½	5½	5½
Birkenhead	10½	10½	10¼	10	10	9½	9½	6½	6½	6½

The mason's rate given is for bankers; fixers usually ½d. per hour extra.

Chippenham.—The T.C. have decided to carry out improvements in the new market, including the erection of lavatories, etc.

Colwyn Bay.—Improvement to promenade by U.D.C.

Dinnington.—Plans for 120 new houses and a picture palace have been passed.

Doncaster.—It is proposed to acquire the skating-rink in South-parade and convert it into offices for the Unemployment Insurance and Labour Exchange Departments.

Dunfermline.—The Public Works Loan Commissioners have lent the T.C. £90,000 for the construction of the main outfall sewer from the old part of the burgh through Rosyth to the Forth. The Dean of Guild Court has passed plans for another Carnegie Institute, prepared by Mr. G. Lindsay, A.R.I.B.A., Glasgow.

Durham.—Mr. H. T. Gradon, A.R.I.B.A., Durham, is the architect for the new hall, offices, and agents' houses for the Durham Miners' Association, and his plans have received the approval of the Executive Committee. The contract will probably be let in the course of a few months.

East Leake.—Restoration of roof of St. Mary's Church.

Eton.—The R.D.C. have passed plans for additions to the Isolation Hospital at Chippenham.

Evesham.—The R.D.C. Surveyor has been instructed to prepare plans for making-up private streets at Badsey.

Foleshill.—Plans passed by R.D.C.:—Picture palace in Croxhall-street, Bedworth, for Messrs. Whittal & Shute; extensions to schools for Warwickshire C.C.; four cottages, Binley, Earl of Craven; ten houses, King George's-avenue, Foleshill, for Mr. T. Roulston; four houses, Wood-street, Collycroft, Bedworth, for Mr. J. Wilon; alterations and additions, Hare and Hounds, Keresley; conversion of one cottage into two at Astley-lane, Bedworth, for Mr. J. Tyler.

Folkestone.—Enlargement of rowing club's premises.

Fraserburgh.—The Development Commissioners have offered a free grant of £20,000 and a loan of £20,000 towards the completion of the harbour scheme, on which £100,000 has already been spent.

Gobowen.—New church.

Guisborough.—The U.D.C. have purchased a site for the erection of an isolation hospital.

Harrogate.—The Corporation have decided to carry out additional works at the Roundhill reservoirs.

Hipperholme.—The U.D.C. are seeking sanction for a loan of £800 for waterworks.

Holme Cultram.—The U.D.C. consider the tenders (given in last week's *Builder*) for the repair of the Silloth sea wall too high, and have instructed their engineer to carry out the work.

Hull.—The L.G.B. have held an inquiry into an application for a loan of £2,785 by the T.C. for stabling accommodation.

Ickenham.—Renovation of parish church.

Keighley.—Plans passed:—Mr. William Dewhirst and others, three streets named Thorncliffe-road, etc.; Messrs. Hall & Stells, extension to foundry, Bolton-street; Dr. Thomas Spencer, alterations to house and motor-house, North Adelaide-street, etc.; Messrs. Walter Slingsby & Co., Ltd., additions to foundry, Woodhouse-road; Mr. F. W. L. Butterfield, two houses, Skipton-road; Messrs. Moore & Crabtree, alterations to shops, East-parade; Mr. William Mason, house, Carleton and Darley streets.

Llantrisant.—The P.C. propose borrowing £5,500 for the construction and laying out of a new burial-ground of 10 acres on Cefn y Parc Farm.

Lutterworth.—The R.D.C have passed plans for four cottages in Gas-street for Mr. P. Rourke, and six in Gladstone-street for Mr Newbery.

Lymington.—The T.C. have passed a plan for a new cinema theatre in St. Thomas-street; and also a plan of a new roadway on a proposed building estate at Broad-lane for Mr. W. Rickman, as submitted by Mr. J. Bevir.

Lyminster.—Improvements to Council school.

Lynn.—Plans passed:—Two new houses, Sydney-street, for Mr. C. D. Allflatt; alterations to Boal Mill for Messrs. R. & W. Paul, Ltd.; open shed, Boal Quay, for Messrs. Kerner-Greenwood & Co.

Malvern.—The Worcestershire E.C. have decided to erect a school for 350 children.

Menai Bridge.—Village institute.

Oswestry.—Plans passed by R.D.C.:—New bakehouse at Ifton Heath for Mr. Parry, St. Martins, also of a cottage at Long Oak for Mr. Harris, Knockin.

Petersfield.—The Hants C.C. have decided to advance £2,700 to the Petersfield Isolation Hospital Committee for the extension of their hospital.

Ruislip-Northwood — The U.D.C. propose applying for a loan of £1,675 for private street works in Hilliard-road; and have approved of a sketch design by Mr Raymond Unwin as the basis of a scheme for laying-out the proposed cemetery. They have also passed the following plans:—Six houses, near Ruislip Metropolitan Railway Station, for and submitted by Messrs. Robinson & Roods; new roads in continuation of Rofant-road for Mr. C. W. Dyson Perrins, submitted by Messrs. Douglass Mathews & Son; new streets and sewers, continuation of Manor Way and first part of Kingsway, for Ruislip Manor, Ltd., submitted by Messrs. A. & J. Soutar; alterations and additions to the Clifton Hotel for Messrs. M. A. Sedgwick & Co., submitted by Mr. S. Dawe; two houses, Kingsend-avenue, for Mr. F. H. Green, submitted by Messrs. Spalding & Myers; two houses, Hilliard-road, for Mr. E. Spark, submitted by Mr J. Shaw; four houses, Kingsend-avenue, for Mr. F H. Green, submitted by Messrs. Spalding & Myers; motor garage and addition to house, Cheney-street, for Mr. J. H. Snelling, submitted by Messrs. Evans & Evans; four houses, Limegrove, for and submitted by Messrs. Fair & Myer.

Ryde.—New shops and houses in High-street for Mr. E. C. Loader.

Sleaford.—The Engineer of the R.D.C. has been instructed to prepare plans and estimates for a comprehensive water scheme for Ewerby, Haverholme, Evedon, and Anwick, as soon as the report is received of the purity of the water taken from the bore.

Southend.—The T.C. have decided to spend £19,000 in improvements at the pierhead, which include the extension of the main and upper deckings, enlarging the bandstand, the provision of a large refreshment-room, and a landing slipway for motor-boats and other small craft. In addition, the Borough Engineer has been instructed to prepare estimates for doubling the train track on the pier, and for making extensive improvements to the pavilion. Plans passed:—Five houses, Hildaville-drive, Mr. J. Iggleden; four houses, Burges-road and Broadway, Thorpe Bay, Mr. C. Matthews; bungalow, Lansdowne-avenue, Mr. M. Kempen, five houses, Fleetwood-avenue, Mr. W. R. Bertie; two houses, St. George's Park-avenue, Mr. A. Day; concert-hall, London-road, Metropolitan Academy of Music; two houses, Eastwood-road, Messrs. J. Warren & Co.; five houses, Woodfield Park-drive, Mr. J. Diggle; one house, Hillside crescent, Mr. W. A. Shrier; two houses, Britannia-road, Mr. S. Adams; three houses, Hainault-avenue, Mr. A. A. Robinson; four houses, Tintern-avenue, Mr. H. Harrowing; church, Belle Vue-avenue, Rev. J. Taberner; four houses, Central-avenue, Mr. C. F. Standen; two bungalows, Chalkwell Park-drive, Mr. F. W. Goldsworthy; and school, Seaview-road, Rev. J. Van Meenen.

Spalding.—The L.G.B. have sanctioned the R.D.C.'s water scheme for the parishes of Pinchbeck, Weston, and Moulton, the estimated cost of which is £14,000.

Sparsholt.—The Hants C.C. have decided to establish a farm school at Westley Farm, and have voted £9,000 for the adaption of buidings and additions.

Stirling.—The T.C. have approved the draft of an order which the L.G.B. purpose issuing for the carrying through of the scheme formulated by the Council for the improvement of the congested slum area of the town. The scheme provides for the demolition of very old and insanitary dwellings in St. Mary's Wynd and part of Broad-street, and for the erection of modern and suitable houses on the cleared site. The work of demolition and reconstruction will be carried out by stages.

Swaffham.—The L.G.B. have authorised the R.D.C. borrowing the following sums for workmen's dwellings:—Great Cressingham, £123 for the purchase of land and £957 for the erection of buildings, etc.; Holme Hale, £116 for the purchase of land and £981 for the erection of buildings, etc.; North Pickenham, £53 for the purchase of land and £959 for the erection of buildings, etc.

Swansea.—The Parks Committee have instructed the Town Clerk to obtain designs from Mr. Howard Humphreys, of London, for a steel bridge to cross the Mumbles-road and give access from the Victoria Park to the sands.

Sydenham.—A scheme is on foot for the erection of a pavilion and extensive additional stand accommodation on the football ground at the Crystal Palace.

Teignmouth.—The U.D.C. have decided to authorise the Surveyor to continue the sea-defence works, at a further cost of £470.

Tenby.—The T.C. contemplate a £15,000 sewerage scheme.

Treorchy.—Cottage hospital.

Truro.—There is every likelihood of several villas and bungalows being erected at the higher end of Falmouth-road, as a considerable area of land has been purchased and let on building leases. Already plans have been presented for bungalows for Mr. Stephens and Mr. S. J. Ingram, and, in addition to other bungalows, it is believed that several semi-detached dwellings will be erected.

Tunstall.—Public mortuary.

Wellingborough.—The sanction of the L.G.B. has been received for alterations at the Workhouse, at a cost of £1,300.

Worcester.—A garden suburb is being developed at Worcester, and five blocks of houses of different styles will be erected as a first instalment.

Worthing.—Alterations at Municipal Offices (£303).

Wrexham.—The Llay Main Colliery, Ltd., will shortly open a large colliery at Llay, near Wrexham. Buiding operations on a considerable scale are to take place in the neighbourhood to accommodate the working-class community.

GENERAL BUILDING NEWS.

ELEMENTARY SCHOOL, DENMARK-HILL, S.E.

Facing the new King's College Hospital an elementary school is being erected in Bessemer-road, Denmark-hill. The architect is Mr. W. E. Riley, F.R.I.B.A., Superintending Architect of the London County Council, and the contractors are Messrs. J. & C. Bowyer, Ltd., Upper Norwood.

UNIVERSITY HOSTEL, KENSINGTON, W.

Progress is being made with the hostel for King's College for Women (University of London) on the site of Blundell House, Campden-hill, W. The architects are Messrs. Adams & Holden, Woburn-place, W.C., and the contract has been let to Messrs. Wallis & Co., Maidstone.

NEW SCHOOL, DALRY.

A new higher-grade school has been erected at Dalry from the designs of Mr. Penman, architect. The building, beside the ordinary classrooms, contains a science-room, laundry, cookery, art, and manual instruction rooms.

BUSINESS PREMISES, NOTTINGHAM.

A new block of business premises has just been completed at the corner of Broad Marsh and Carrington-street, Nottingham. The architects for the work are Messrs. Evans & Son, and the building has been built on the girder system. The building has been faced with Carrara marble, while the roof is flat, allowing for the addition of another story if required. The height of the building is 90 ft., while a total area of 22,000 sq. ft. is covered. The builder is Mr. Fred Evans, of Bulwell.

CARNEGIE INSTITUTE FOR DUNFERMLINE.

Mr. George Lindsay, A.R.I.B.A., is the architect for the proposed new institute to be erected in Nethertown Broad-street. The building will contain a central hall, lounge, committee-room, billiard, smoking, reading, and recreation rooms. There will also be twelve slipper-baths and two spray-baths. The estimated cost of the work is £8,000.

NEW BUILDINGS IN GLASGOW.

Plans were submitted to the Dean of Guild Court by the Dumbarton Building Society for ten double cottages, which are to be erected on the east side of a new street to be made at Silvertonhill, Glasgow-road. Mr. J. G. Campbell is the architect.

NEW BUILDINGS AT BRISTOL.

The Bristol Baptist College buildings are being erected on a site in Woodland-road from the designs of Messrs. Oatley & Lawrence, architects. The building provides residential accommodation for twenty students, while included in the scheme is an administrative block, dining hall, lecture hall, museum, library, etc. The estimated cost of the whole work is about £18,000, and the contractors are Messrs. J. Dallow & Sons, of Birmingham.

NEW STATION AT MONKSEATON.

The directors of the North-Eastern Railway Company have decided to erect a new station at Monkseaton. The work is being carried out from the designs of the company's architect, Mr. William Bell, and the main building will be in red pressed bricks, with terra-cotta facings, and will be 250 ft. long. The platforms are to be 600 ft. long, and an "island" platform 250 ft. long, to be covered by an umbrella roof, will have waiting-rooms, etc., underneath. The contractors are Messrs. Noble & Son, of Dunston-on-Tyne, and the clerk of works is Mr. J. Knaggs.

ISLAND SITE HOTEL, PICCADILLY.

The contract for the heating, ventilation, and hot-water supply for the great Island Site Hotel, Piccadilly-circus, now in course of erection, has been placed with Messrs. J. Jeffreys & Co., Ltd. The specification and plans were prepared by Mr. A. H. Barker, consulting engineer. The hotel is to be one of the largest in Europe. The whole of the public rooms are to be heated by hot water and ventilated by a combined system of propulsion and extraction requiring the hourly provision of 10,000,000 cubic ft. of air All bedrooms are to be warmed by electric radiators with flue ventilation, and the passages and corridors by vacuum steam at reduced pressures, the domestic offices by medium pressure steam. Hot-water supply is to be laid on to each of the 1,000 bedrooms now to be erected. There will be several hundred miles of pipes in the building. The temperatures of the rooms and the water, and the ventilation throughout the entire building, will be under the charge of one engineer, who will determine and control by electricity the temperature and the ventilation at any part of the building without leaving the control-room in the basement. The hotel is expected to be ready for occupation in October of next year. Messrs. Tanner & Willis are the architects.

TRADE NEWS.

The Gloucestershire County Council has specified "Pudlo," the powder which makes cement waterproof, for lining reservoirs.

NOTIFYING ACCIDENTS.

A point of some interest was considered in the Cardiff Stipendiary Magistrates' Court recently, when Messrs. A. Jackaman & Son, contractors, were summoned for not reporting an accident which occurred to a man at the Cardiff Docks on April 28 last. Capt. T. O. Edwards, of the Board of Trade, in prosecuting, said the summons was issued under the Investigation of Accidents Act, which applies to all buildings in course of construction. It appeared that defendants were erecting a building at the Cardiff Docks when a man met with an accident. It was very important that all accidents should be reported, because at the end of the year every accident was tabulated and submitted to Parliament. The importance of reporting these accidents was shown by the fact that the maximum penalty for the offence was £10. Mr. Ivor Downing (Messrs. Downing & Hancock) said the man who met with the accident was employed by a sub-contractor under the defendants, who had no direct knowledge of the accident. Until they asked for information they did not know that a contractor should report an accident which occurred to an employee under a sub-contractor.—The summons was dismissed on payment of costs.

STOCAL AND ANTI-STOCAL PATENT WALL TILING.

We have before us samples of these patent tiles, which are formed of stout steel plates with the edges turned backwards in such a manner that when bedded in cement, or concrete, or plaster they become an integral part of the wall, and cannot fall off or be removed without destruction of the wall surface. The whole surface of the tiles back and front is enamelled with "Stocal" vitreous enamel, which is quite impervious to rust, acid, salt, or atmospheric influences. The exposed surfaces are produced in all the known colourings and effects, either glazed or matt, resembling the different makes of earthenware goods, salt glazed, faïence ware, majolica, terra-cotta, or Dutch ware, and other finishes. They can be manufactured in all sizes and shapes, also in relief or ornamental shape and mouldings. The work is guaranteed not to crack under any change of temperature, is one-third the weight of ordinary tiling, and unbreakable. If a wall settles the tiles do not crack, and pointing only is required. The anti-Stocal tiles are made for attachment to wooden partitions or other surfaces which will take screws. These tiles have been used by the Admiralty and several Councils, as well as the Electric Underground Railway, and they are now specified for the new work of the extension of the Bakerloo line to Queen's Park. They possess many advantages, and will no doubt be extensively used.

TAR AND WOOD BY-PRODUCTS.

We have received from the Swedish Chamber of Commerce in London a copy of their special Tar and Wood By-product number, which contains much valuable information. Several pages are devoted to Swedish tar brands, wood by-products, products from wood waste, and also an interesting article on "How to Make Pine Needle Oil," with twelve illustrations. Among other items in the general section are a short article on Swedish Industries and a note on Portland Cement. Those interested in these subjects may obtain a copy of the journal, post-free, from the Swedish Chamber of Commerce, at 5, Lloyd's-avenue, E.C.

PORT OF LONDON AUTHORITY OFFICES.

We understand that the tender of Messrs. John Mowlem & Co., Ltd., has been accepted for the construction of the foundations of the new head offices on the Trinity-square, Tower-hill, site, of the Port of London Authority.

OBITUARY.

Mr. Charles Jones, M.Inst.C.E.

We regret to record the death of Mr. Charles Jones, M.Inst.C.E., F.S.I., the Ealing Borough Engineer, which took place at the Lodge, Culmington-road, Ealing. Mr. Jones, who was eighty-three years of age, was a native of Beccles, Suffolk. He came to live at Ealing about sixty years ago, and, after practising as an architect in the district, was appointed the first Surveyor under the Ealing Local Board. He held his office during the successive changes of the local authority to the status of District and Borough Council, and dealt with the municipal development of Ealing in a book he wrote bearing the title "From Village to Corporate Town." Mr. Jones became widely known and respected, and was about to resign his office in order to discharge, during the ensuing year, the duties of Mayor. Mr. Jones had undertaken a good deal of architectural work in the Ealing district, including the design of several churches and the Ealing public offices, but his chief work was that of a sanitary engineer. He was a member of the Institution of Civil Engineers and a Fellow of the Surveyors' Institution. In May, 1910, was presented to him, and hung in the Town Hall, a painted portrait of himself, in recognition of his long and manifold services in a district which, during his term of office, had grown from a typical Middlesex village to a corporate borough, with nearly 60,000 inhabitants. The funeral took place on Wednesday, August 27, at the City of Westminster Cemetery, Hanwell, after a service in St. Mary's Church, Ealing.

Mr. T. Arrol.

The death, on August 21, at his residence, No. 11, Victoria-circus, Dowanhill, Glasgow, is announced of Mr. Thomas Arrol, aged fifty years. Mr. Arrol, a member of Council. Institution of Civil Engineers and Shipbuilders in Scotland, was a nephew of the late Sir William Arrol, and a director of the firm of Sir William Arrol & Co., of Glasgow, which he entered more than thirty years ago, after having served for a while as an apprentice of Messrs. A. S. Craig & Co., of Paisley. Whilst with Sir William Arrol & Co. he was more particularly engaged upon the outside constructional work undertaken by his firm.

PATENTS.

APPLICATIONS PUBLISHED.*

17,482 of 1912.—Siegmund Sborowitz: Process of making artificial stone and the product produced thereby.

17,852 of 1912.—Thomas Flewett Craddock (John Peter Gregory): Mortise locks or latches.

18,781 of 1912.—John William Tunstall and Robert Nelson Brown: Automatic window fastener.

19,190 of 1912.—Allan Stevenson: Heating and storage apparatus for hot-water supply.

21,166 of 1912.—Henry Selby Hele-Shaw: Apparatus for disinfecting and flushing water-closets.

21,170 of 1912.—Edward Howard Birch: Permanent fire-escape for hotels, factories, warehouses, theatres, and the like.

21,995 of 1912.—George Wood: Cowl for the tops of chimneys.

23,755 of 1912.—Jean Baptiste Mat: Flushing apparatus for water-closets.

24,577 of 1912.—Arthur Russling: Building bricks or blocks.

24,723 of 1912.—Arthur Herbert Noble: Cradle or support so designed that it may be used by window cleaners or painters, who may sit or stand to work outside the window.

25,722 of 1912.—William Henry Gardner: Window ventilators.

25,848 of 1912.—James Marshall: Door frames.

26,872 of 1912.—Lewis Hanson: Metal sashes.

28,554 of 1912.—Jesse Ward, Arthur Henry Meir, and William Albert Adams Quinton: Machines or apparatus for gauging or measuring tiles.

29,342 of 1912.—Akos Radich: Flushing apparatus for water-closets and the like.

29,877 of 1912.—John McIntyre Shaw: Boilers for kitchen ranges.

4,445 of 1913.—Christopher Dobson and Richard Iddon: Means for obtaining a supply of heated air from fireplaces.

4,658 of 1913.—Baptistin Marius Rolland: Device for increasing the heating efficiency of stoves, radiators, and like heating apparatus.

5,796 of 1913.—Carl Georg Gulbrand: System of construction for cast walls.

6,241 of 1913.—George Bailey: Boilers for kitchen-ranges and the like.

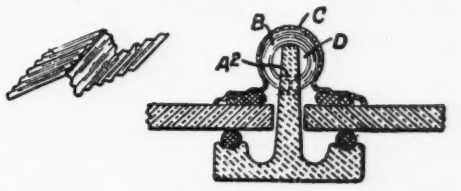
6,938 of 1913.—Warren Francis Drew: Flush tanks for closets and the like.

13,035 of 1913.—Thomas Briggs: Chimney pots or revolving cowls.

SELECTED PATENTS.

7,397 of 1912.—Lepton Dobson Sunderland and Charles Stanley Pickles: Glazing roofs.

This relates to roofs wherein the copper capping strips C are formed with circular heads D, and are sprung over rings B inserted

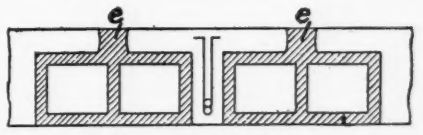


7,397 of 1912.

in holes A^2 in metal glazing bars. Asbestos packing is inserted between the edges of the capping and the glass. Lapless joints are formed between the rows of panes by corrugated Z-shaped flashing strips, the corrugations of the parts engaging the glass being at right angles to one another.

7,586 of 1912.—Oscar Faber and Wallace Elliot: Flooring blocks.

This relates to hollow porous blocks for reinforced concrete floors which are formed



7,586 of 1912.

with projections *e* on their upper surface, to which the flooring boards are nailed. The projections may extend over the full length of the block or only over a part thereof.

* All these applications are in the stage in which opposition to the grant of Patents upon them can be made.

List of Competitions, Contracts, etc.

For some Contracts still open, but not included in this List, see previous issues. Those with an asterisk (*) are advertised in this number: Competitions, iv; Contracts, iv. vi. viii. x.; Public Appointments, xxi.; Auction Sales, xxvi. Certain conditions beyond those given in the following information are imposed in some cases, such as: the advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

***** It must be understood that the following paragraphs are printed as news, and not as advertisements; and that while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur.**

Competitions.

SEPTEMBER 1.—**High Wycombe.**—TOWN PLANNING.—The Borough Council of High Wycombe invite schemes for the town planning of the borough. Premiums of £25, £10, and £5 respectively. Particulars from Mr. T. J. Rushbrooke, Borough Surveyor, High Wycombe.

SEPTEMBER 3.—**Wheatley Hill.**—The Board of Management of the Haswell Co-operative Provision Society, Ltd., invite competitive plans and estimates for the building of a new branch premises at High Wheatley Hill. Premiums of £25, £15, and £10 are offered for designs selected by the assessors. Particulars and copies of sketch plan can be obtained at the office of the General Manager, Haswell Co-operative Society, Ltd., Haswell.

OCTOBER 31. — **York.** — HOUSING AND TOWN PLANNING.—The Town Committee of the York Corporation invite architects and surveyors to submit for competition a scheme under the Housing and Town Planning Act, 1909, in connection with certain areas within and without the City of York. Premiums of £100, £50, and £25 respectively will be awarded. See advertisement in issue for July 18.

NOVEMBER 1.—**Sofia.**—DESIGNS FOR A ROYAL PALACE AND LAW COURTS.—**Particulars from the Commercial Intelligence Branch of the Board of Trade, Basinghall-street, E.C.** See page 173, August 9, and page 350, September 27, 1912; also page 708, June 20.

NOVEMBER 29. — **Folkestone.**—BAND PAVILION.—The Folkestone Corporation invite designs for a band pavilion to be erected on the face of the West Cliff. See advertisement in issue for August 15, and "Competition News" last week.

* JANUARY 2, 1914.—**Manchester.**—NEW BUILDINGS AND ALTERATIONS.—The Board of Directors of the Manchester Royal Exchange, Ltd., invite architects to submit designs for additional new buildings and alterations on the existing Exchange buildings.

NO DATE.—**Blackburn.**—NEW FIRE-STATION.—The Blackburn Corporation are to invite designs for a proposed new fire-station and firemen's dwellings. Competition limited to architects having an office within the borough. Premiums, £100, £50, and £25. Assessor is Mr F. G. Briggs, F.R.I.B.A. Apply Town Clerk, Town Hall, Blackburn.

NO DATE.—**Bradford.**—LAYING-OUT OF AN ESTATE, ETC.—The Council of the City of Bradford invite designs for the laying-out of an estate, and for the erection of workmen's dwellings. See advertisement in issue of July 25 for further particulars.

NO DATE.—**Coventry.**—The E.C. invite competitive sketch plans for the enlargement of Little Heath Council School. The competition is strictly limited to architects practising in the city of Coventry. Particulars of the competition may be obtained at the Education Office, 44, Bayley-lane, Coventry.

* NO DATE.—**Whitehall, S.W.**—NEW OFFICES FOR BOARD OF TRADE.—The Commissioners of H.M. Works and Public Buildings invite preliminary sketch designs for new offices for the Board of Trade, etc., in Whitehall-gardens.

Contracts.

BUILDING.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

SEPTEMBER 1.—**Morley.**—REBUILDING OF MILLS.—Tenders wanted (in one contract) for the various works required in reinstating the premises (after fire), Providence Mills, Morley, for the trustees of the late Mr. Daniel Hinchcliffe. Specifications, etc., of Mr. T. A. Buttery, Lic.R.I.B.A., architect and surveyor, Queen-street, Morley.

SEPTEMBER 1.—**Warrington.**—MARKET STALLS.—Construction of new stalls in the Fish Market for the Warrington T.C. Specifications, etc., at the office of the Borough Surveyor, Town Hall.

SEPTEMBER 2.—**Margate.**—PAVILION, ETC.—The Corporation invite tenders for (a) the erection of a bathing pavilion (with shelters and lavatories) at Westbrook Promenade, and (b) the construction of a concrete and steel bridge over Hodges Gapway, Queen's Promenade. Specification, etc., of Mr. E. A. Borg, Borough Surveyor, 13, Grosvenor-place, Margate. Deposit, £5.

SEPTEMBER 2.—**Wembley.**—ISOLATION HOSPITAL.—Temporary isolation hospital (wood and galvanised iron) for the Wembley U.D.C. Specification, etc., of Mr. Cecil R. W. Chapman, Engineer and Surveyor to the Council, Wembley.

SEPTEMBER 3. — **Halifax.** — PICTURE HOUSE.—Contractors to apply to Mr. Thos. Kershaw, A.R.I.B.A., architect, 36, George-street, Halifax.

SEPTEMBER 3.—**Rawmarsh.**—COAL STORE.—The Rawmarsh U.D.C invite tenders for enlarging the coal store at the gas works, Parkgate. Specifications, etc., at the office of the Council's Engineer. Deposit, £1 1s.

SEPTEMBER 4.—**Swansea.** — WAREHOUSE. — The Swansea Harbour Trustees invite tenders for the extension of a warehouse at the South Dock. Specification, etc., of Mr Talfourd Strick, Clerk, Harbour Offices, Swansea. Deposit, £2 2s.

SEPTEMBER 5.—**Stainland Holywell Green.**—SCHOOL.—The West Riding E.C. invite whole or separate tenders for various trades for Stainland Holywell Green New School. Specifications, etc., on application to the Education Architect, County Hall, Wakefield. Deposit, £1 1s.

SEPTEMBER 6. — **Camborne.** — SCHOOL. — The Cornwall E.C. invite tenders for the extension of the Camborne County School for Girls, according to plans and specification of Mr. Sampson Hill, Architect to the Committee, Green-lane, Redruth, from whom form of tender and bills of quantities may be obtained. Deposit £1 1s.

SEPTEMBER 6.—**Glasgow.**—LECTURE HALL.—The Corporation invite offers for the various works required in connection with the proposed erection of a nurses' lecture-room at Ruchill Hospital. Specifications, etc., at the Office of Public Works, 64, Cochrane-street, Glasgow.

SEPTEMBER 8.—**Droitwich.**—WORKMEN'S COTTAGES.—The T.C. invite tenders for the erection in their district of twelve workmen's cottages. Specification, etc., of Mr. Henry Hulse, M.I.Mun.E., Borough Surveyor, Borough Surveyor's Office, Droitwich. Deposit, £1 1s.

SEPTEMBER 8.—**Pershore.**—COTTAGE HOMES.—The Guardians of Pershore Union invite tenders for the erection of cottage homes at Pershore in accordance with plans and specification of the architects, Messrs. Dicks & Waldron, Evesham. Quantities supplied.

SEPTEMBER 9. — **Crossness.** — REPAIRS. — The L.C.C. invites tenders for repairing certain portions of the buidings at the Southern Outfall Works, Crossness, in the Urban District of Erith, in the county of Kent. Specifications, etc., on application to the Chief Engineer of the Council, Mr. G. W. Humphreys, at the County Hall, Spring-gardens, S.W. Deposit, £1.

SEPTEMBER 9.—**Moseley.**—POST OFFICE, ETC.—The Commissioners of H.M. Work and Public Buildings invite tenders for the erection of Moseley New Branch Post Office and Telephone Exchange. Specification, etc., of Mr. J. Tosh, H.M. Office of Works, 42, Paradise-street, Birmingham. Deposit, £1 1s.

SEPTEMBER 9.—**Stretford.**—SCHOOL.—The Stretford E.A. invite tenders for the erection of an infants' school adjoining the Victoria Park Council School, Stretford. Plans, etc., of the architects, Messrs. Woodhouse & Howard, 88, Mosley-street, Manchester. Deposit, £2 2s.

SEPTEMBER 10. — **Kirkburton.**—COTTAGES.—The Storthes Hall Asylum Committee invite whole or separate tenders for the work required in the erection of eight cottages in two blocks, at the Storthes Hall, Asylum, Kirkburton, near Huddersfield. Plans, etc., of Mr. W. E. H. Burton, A.M.Inst.C.E., Architect to the Board, the Asylum, Wakefield. Deposit, £1.

SEPTEMBER 10.—**Leeds.**—ALTERATIONS.—Alterations and improvements to "The Grange" Hostel, at Beckett's Park, Headingley. Quantities, etc., of the Education Department (Architect's Section), Calverley-street, Leeds.

SEPTEMBER 11.—**Darfield.**—CEMETERY.—The Darfield U.D.C. invite tenders for the erection and completion of the various works (including chapel and caretaker's house) required for new cemetery at Darfield. Plans and specifications, etc., at the office of the Surveyor, Council Offices, Darfield. Deposit, £1 1s.

SEPTEMBER 15.—**Newton Abbot.**—CLUB.—Erection of a club building for the Building Committee of the Mid-Devon Liberal Club. Plans and specifications, etc. of Mr. Josias C. Beare, A.R.I.B.A., architect, 42, Devon-square, Newton Abbot. Deposit, £2 2s.

* SEPTEMBER 15.—**Petworth.**—WORKMEN'S COTTAGES.—The Petworth R.D.C. invite tenders for the erection of twelve workmen's cottages.

SEPTEMBER 15.—**Watford.**—WORKMEN'S DWELLINGS.—The Watford U.D.C. invite tenders for the erection of twenty-two working-class dwellings at Willow-lane, Watford. Specification, etc., of Mr. D. Waterhouse, Engineer, Council Offices, Watford. Deposit, £1.

SEPTEMBER 18.—**Dorchester.**—ALTERATIONS.—The T.C. invite tenders for alterations to stables at the Corporation Depôt. Specifications, etc., at the Borough Engineer's Office, 21, North-square, Dorchester.

SEPTEMBER 25.—**Barrow-in-Furness.**—BATHS.—The Corporation invite tenders for the following work in connection with the erection of public baths, Abbey-road:—(a) Builder's work; (b) steam, hot water, and heating engineer's work. Specifications, etc., of the Borough Engineer and Surveyor, Town Hall.

NO DATE.—**Aberaman.**—COTTAGE HOSPITAL.—Contractors desirous of tendering for the erection of a cottage hospital at Aberaman, Aberdare, are requested to communicate with Mr. George Kenshole, M.S.A., Bargoed. Deposit, £3 3s.

NO DATE.—**Bingley.**—HOUSES, ETC.—Various works (except plumber's) required in the erection of houses and shops at Crossflats, Bingley. Messrs. Nunns & Bracewell, Bank-chambers, Bingley.

NO DATE.—**Ebchester.**—COTTAGES.—Tenders are invited for the erection of twelve cottages at Ebchester Village for the Durham Aged Mineworkers' Homes Association. Specifications, etc., on application to Mr. F. O. Kirkup, Mining Offices, Medomsley, Co. Durham.

NO DATE.—**Gloucester.**—WORKMEN'S DWELLINGS.—Erection of twenty-four workmen's dwellings on the Tuffley Estate, Gloucester. Particulars of Messrs. La Trobe & Weston, F.R.I.B.A., architects and surveyors, 1, Unity-street, Bristol.

NO DATE.—**Morley.**—BUILDINGS.—Erection at Withens Clough Reservoir, Cragg Vale, near Mytholmroyd, of buildings for the mechanical filtration plant, clear water tank, sedimentation tanks, drains, and alterations to existing building for the chemical treatment plant. Applications to the Town Clerk, Town Hall, Morley. Deposit, £2 2s.

NO DATE.—**South Wales.**—BRICKLAYING.—A number of bricklaying sub-contracts (labour only) in connection with a large housing scheme in South Wales. Welsh Garden Cities, Ltd., 3, Dumfries-place, Cardiff.

* NO DATE. — **Weston-super-Mare.** — PUBLIC ABATTOIRS, ETC.—The Weston-super-Mare U.D.C. invite builders who are desirous of tendering for the erection of public abattoirs and appurtenant works to submit their names.

ENGINEERING, IRON, AND STEEL.

SEPTEMBER 3. — **India.** — ROOFING, ETC.—The South Indian Railway Company, Ltd., invite tenders for the supply of platform roofing and footbridge. Specifications and forms of tender may be obtained at the company's offices, 91, York-street, Westminster, S.W. Charge of 10s. for each copy of specification.

SEPTEMBER 3. — **Manchester.** — ELECTRIC FITTINGS.—Providing and fixing electric light fittings, etc., at the Municipal School of Domestic Economy, High-street, C.-on-M., Manchester. Specification at the Education Offices, Deansgate, Manchester. Deposit, £1 1s.

SEPTEMBER 8. —**Egypt.** — STEELWORK. — The Egyptian War Department invite tenders for the supply of steelwork for steel-framed buildings at Talodi. All particulars obtainable from Sir A. L. Webb, K.C.M.G., Queen Anne's-chambers, Westminster, S.W.

SEPTEMBER 9. — **Whalley.** — TELEPHONES, FIRE ALARMS, ETC.—The Committee of Visitors for Whalley Asylum invite tenders for the installation of a system of tell-tale clocks, telephones, electric clocks, and fire alarms. Particulars from the architect, Mr. Henry Littler, 16, Ribblesdale-place, Preston. Deposit, £2 2s.

SEPTEMBER 12.—**Cardiff.**—ELECTRIC GENERATING PLANT.—The Cardiff Corporation invite tenders for the supply, delivery, and erection of plant at their Roath Power Station. Specification, etc., from Mr. Arthur Ellis, City Electrical Engineer and Manager, Central Offices, The Hayes, Cardiff. Deposit, £1 for each of three specifications.

Continued on page 234.

[Those with an asterisk (*) are advertised in this issue.]

ESTATES AND SITES NOTES.

National Roads.

THE National Roads Act, 1913, which has passed its first reading, seems to be the natural outcome of the Development and Road Improvement Funds Act, 1909, and the recent Road Congress.

At the latter it was pointed out that Great Britain was the only country in Europe without national roads.

The report at the Congress made by Mr. Rees Jeffreys, the Secretary to the Road Board, on the papers read in the section on authorities and their functions, while recognising that the system of road administration must depend upon the general political tendencies of the people, stated that in countries where maintenance of roads by local authorities has hitherto been the system the modern engineering problems of road construction raised by the increase of motor traffic are creating a tendency to greater centralisation, and it is desirable that there should be a further development of State assistance.

The question seems to be largely one of making the unit of administration large enough to command sufficient resources to employ a competent staff.

The old geographical boundaries are found to be unworkable, and the costs of administration very unequally divided.

The Bill proposes to give power to the Road Board to declare as national roads any which, in its opinion, communicate between County Council and County Borough areas. These authorities can themselves apply to have certain roads so declared.

Notice must be given of such declaration to every highway authority in the area through which the road passes and objections considered.

The maintenance of such roads is provided to be borne by the Road Board, whose borrowing powers are increased to £500,000, but their attention is to be confined to the centre, and all footpaths, kerbs, channels, and also the watering and scavenging, will be left, as before, to the highway authority.

The scheme will probably involve a wholesale reshuffling of road surveyors and their assistants, and compensation is provided for where necessary.

Report of Select Committee on London Traffic.

Meanwhile the Report of the Select Committee on London Traffic recommended an extension of the powers of the Traffic Branch of the Board of Trade, and makes elaborate proposals as to its duties. It proposes to transfer the existing veto of Borough Councils against tramway schemes to the Board of Trade, which would then report to Parliament, which presumably would have to decide.

This might have serious effects in such districts as Kensington and Bloomsbury, where trams have, so far, been successfully resisted. In many cases the very existence of some of the best property in these districts depends upon the absence of trams, and everything seems to point to the necessity for an agreement between the various Councils on the subject, or a close connection between the traffic authority and the proposed new town planning authority for London.

No doubt, if we get national roads most of London's approaches will be included. That would enable the Road Board to widen them if necessary without reference to the County Council or City Corporation. At present each follows its inclination, and we find the two latter authorities carrying out certain expensive widenings (such as Leadenhall-street and Fleet-street) without the knowledge or advice of the Board of Trade nor any contribution from the Road Board.

Motor Road Round London.

An interesting map has just been published (by Mr. Reginald Brown, F.S.I.), showing the routes into, out of, around, and across London, as officially recommended by the R.A.C.

The distinctive feature is a route coloured blue encircling London at a radius of about 10 miles. It traverses existing roads, and enables travellers who wish to get to the other side of London to get easily round it. As these roads were found to be very narrow and twisted, Mr. Brown, on behalf of the club, approached the thirty-six authorities through whose areas the road passed, and asked them to undertake to widen them to a minimum width of 50 ft. as opportunity offered. Thirty-two agreed and gave the undertaking, and no doubt if powers can be obtained they will in due course carry out the compact.

It is quite clear that they are impressed by the businesslike manner in which they were approached, and it is instructive to see how much can be achieved by a strong and well-considered lead, while others are discussing the politics of the proposition.

Great credit is due to Mr. Brown for his activity, and it is to be hoped he will keep a careful watch along the route proposed to see that no steps are allowed to be taken which might prevent the realisation of his scheme. such as the erection of costly buildings facing the narrow parts of the route. We have doubts whether if these widenings have to be carried out under compulsory powers they will ever be done.

Building Estate at Bognor.

A freehold building estate of about 5½ acres was offered by auction at Bognor by Messrs. Reynolds & Co. on August 20. A commencing bid of £1,500 was made, and at the price of £2,600 the auctioneer declared the estate open to the room; the hammer, however, did not fall until the satisfactory bid of £3,300 was reached. We understand the purchaser will almost immediately cut a new road through the estate nearly 900 ft., and so building operations will no doubt soon be commenced.

Messrs. DENSHAM & LAMBERT,

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TELEPHONES { 42 MAYFAIR (2 lines). 5385 „

TELEGRAMS: "DENSHAMINE, LONDON."

ENGINEERING, etc.—*continued from page 232.*

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those wiling to submit tenders, may be sent in.

SEPTEMBER 15. — **Athlone.** — BRIDGE. — The directors of the Midland Great Western Railway of Ireland Company invite tenders for the supply and erection of a steel underbridge at the 78¼ mile on their Mayo line at Athlone Station. Specification, etc., at the Chief Engineer's Office, Broadstone Station, Dublin Deposit, 10s.

SEPTEMBER 16. — **Lothian.**—RAILWAY WORKS.—The Directors of the North British Railway Company are prepared to consider tenders for the construction of the Lothian lines authorised by the North British Railway Act, 1913. Drawings at the office of Messrs. Biyth & Blyth, civil engineers, 135, George-street, Edinburgh. Specification, etc., of Mr. John Cathles, Secretary, 23, Waterloo-place, Edinburgh. Deposit, £3.

SEPTEMBER 22. — **Edinburgh.** — ELECTRIC GENERATING PLANT.—The Edinburgh Corporation invite tenders for two mixed pressure steam turbines and direct current generating plant, each set to be of 1,500 K.W. capacity. Specification, etc., from the Engineer, Dewar-place, Edinburgh. Deposit, £2 2s.

✱ SEPTEMBER 24. — **Hammersmith.** — COAL STORAGE TANKS.—The Hammersmith B.C. invite tenders for construction of five coal storage tanks.

FURNITURE, PAINTING, MATERIALS, etc.

SEPTEMBER 3.—**Manchester.**—PAINTING.—The Guardians of the township of Manchester invite tenders for painting at the Poor Law Offices, New Bridge-street, Manchester. Particulars of Mr. A. J. Murgatroyd, architect, 23, Strutt-street, Manchester. Deposit, 10s. 6d.

SEPTEMBER 6. — **Leeds.** — PAINTING. — The Guardians of the township of Leeds invite tenders for painting work required at Section 6 of their infirmary, Beckett-street, Leeds. Specifications, etc., of Mr. James H. Ford, Clerk to the Guardians.

SEPTEMBER 8. — **Rathmines.** — PAINTING.—The Rathmines and Rathgar U.D.C. invite tenders for painting the public electric lamp-posts in the township. Specification, etc., at the Clerk's Office, Town Hall, Rathmines.

SEPTEMBER 9.—**Bedford.**—MATERIALS.—The Corporation of Bedford invite tenders for the supply of about 1,750 tons of broken granite, 2,470 tons of ironstone slag, and 1,690 tons of ironstone slag tarmacadam for roadmaking. Particulars, etc., of Mr. N. Greenshields, A.M.Inst.C E., Borough Engineer and Surveyor, Town Hall, Bedford.

SEPTEMBER 10.—**Aberaman.**—The Directors of the Powell Duffryn Steam Coal Company, Ltd., invite tenders for the supply of stores, including bar and other iron, ironmongery, steel girders, channels and rails, nails, steel, cement, electrical goods, etc. Full particulars of the Stores Manager, Aberaman Offices, near Aberdare.

✱ SEPTEMBER 24.—**Hammersmith.**—COAL HANDLING PLANT. — The Hammersmith B.C. invite tenders for the supply of certain coal handling plant.

ROADS, SANITARY AND WATER WORKS.

SEPTEMBER 1.—**Auckland.**—STREET WORKS.—The R.D.C. of Auckland invite tenders for the making up of certain private streets at Eldon-lane and Busty-terrace. Specification, etc., of Mr. Charles Heslop, Sanitary Surveyor, 9, Cradock-street, Bishop Auckland.

SEPTEMBER 1.—**Skegness.**—SEWERAGE WORKS.—The Skegness U.D.C. invite tenders for the extension of the sewerage works. Plans and specifications at the offices of the Engineers, Messrs. Elliott & Brown, A.MM.Inst.C.E., Burton-buildings, Parliament-street, Nottingham. Deposit, £2 2s.

SEPTEMBER 2.—**Aldershot.**—STREET WORKS.—Making up of Highfield-avenue (between Churchlane and Bridge-road) for U.D.C. Specifications, etc., of Mr. Fred C. Uren, the Surveyor, Municipal-buildings, Aldershot.

SEPTEMBER 2.—**Blaydon.**—ROADS.—The Blaydon U.D.C. invite tenders for tools and labour only in connection with excavating about 960 sq. yds. and penning and metalling about 10,584 sq. yds. on the road between Blaydon and Scotswood, and also for team labour in connection with the above. Specification, etc., from the Surveyor, Mr. George Symon, Council Offices, Blaydon.

SEPTEMBER 2. — **Leith.** — STREET WORKS. — (1) Laying about 3,540 yds. of Portland cement concrete paving in various private back courts in the burgh; (2) laying about 3,750 yds. of Portland cement concrete foot pavements in various streets in the burgh. Specifications, etc., at the Burgh Surveyor's Office, Charlotte-street.

SEPTEMBER 4. — **Manchester.** — RECREATION GROUND.—The Parks and Cemetery Committee invite tenders for the laying-out, etc., of New Moston Recreation Ground. Specification, etc., on application at the City Surveyor's Office, Town Hall, Manchester. Deposit, £2 2s.

SEPTEMBER 4. — **Richmond (Surrey).** — ROAD WORK.—The T.C invite tenders for paving the carriageway of part of Hill-street, an area of about 1,000 square yards, with creosoted deal blocks, laid on a concrete foundation. Particulars of Mr. J. H. Brierley, Borough Surveyor, Town Hall, Richmond. Deposit, £1 1s.

✱ SEPTEMBER 6. — **Cheam.** — GRAVELLING.—The Cheam P.C. invite tenders for gravelling about 1,300 yds. of road.

✱ SEPTEMBER 6.— **Cheam.** — LIMESTONE TARPAVING.—The Cheam P.C invite tenders for supplying and laying about 945 yds. of limestone tarpaving.

SEPTEMBER 6.—**Loughrea.**—SEWERAGE WORKS.—The Loughrea U.D.C. invite tenders for sewerage works, according to plans and specif.cation prepared by their Engineer, Mr. T. W. Roseingrave, B.E., 33, Catherine-street, Limerick, and their Consulting Engineer, Mr. F. Bergin, B.E., 36, Westmoreland-street, Dublin. Specification, etc., at the offices of the Engineers. Deposit, £1.

SEPTEMBER 6.—**Swinton.**—STREET WORKS.—The Swinton and Pendlebury U.D.C. invite tenders for the making up of several private streets within the district. Quantities, etc., of Mr. H. Entwisle, Council Offices, Swinton, near Manchester.

SEPTEMBER 6. — **York.** — WATER WORKS.—The Yorkshire Inebriates Act Joint Committee invite tenders for the construction of a soft-water reservoir, and for the laying of rain water drains at the Inebriates Reformatory, Cattal, near York. Specifications, etc., of Mr. Robert E. Fox, Clerk to the Joint Committee, Pearl-chambers, East-parade, Leeds.

SEPTEMBER 8.—**Spalding.**—WATER WORKS.—The Spalding R.D.C. invite tenders for the construction of new water mains, etc., for the parishes of Pinchbeck, Weston, and Moulton. Particulars of the Council's Engineer, Mr. E. J. Silcock, M.Inst.C.E., Sanctuary House, Tothill-street, Westminster, and 10, Park-row, Leeds. Deposit, £5.

SEPTEMBER 9.—**Southampton.**—STREET WORKS.—The Corporation invite tenders for executing private street works in Atherley-road North, Norfolk-road, Shayer-road, and Morland-road Specifications, etc., at the Borough Engineer's Office. Deposit, £1 1s.

SEPTEMBER 10.—**Heston.**—ROADS.—The U.D.C. of Heston and Isleworth invite tenders for the following works, viz.:—(1) Resurfacing roads with asphalt macadam; (2) the maintenance of asphalt macadam for a period of five years; and (3) the maintenance of the asphalt macadam for a further period of five years (making ten years' maintenance in all). Particulars of Mr. J. G. Carey, A.M.Inst.C.E., Engineer and Surveyor to the Council, Council House, Hounslow.

SEPTEMBER 10.—**Heston.**—ROADS.—The U.D.C. of Heston and Isleworth invite tenders for the following works, viz.:—(1) London-road, Isleworth (a) supplying and laying about 10,900 square yards of 7 to 9 centimetre granite cube sett paving; (b) supplying and laying about 1,000 square yards of 2-in. lithofalt paving. (2) Richmond-road, Isleworth (a) supplying and laying about 3,427 square yards of 7 to 9 centimetre granite cube sett paving. Specification, etc., of Mr. J. G. Carey, A.M.Inst.C.E., Engineer and Surveyor to the Council, Council House, Hounslow. Deposit, £1 1s.

SEPTEMBER 10.—**Ogmore.**—The Ogmore and Garw U.D.C. invite tenders for the Gilfach Goch outfall sewer. Specification, etc., at the Council Offices, Brynmenyn, Glamorganshire. Deposit, £5 (not cheques).

✱ SEPTEMBER 11.—**Hartley Wintney.**—SEWAGE DISPOSAL WORKS.—The Hartley Wintney R.D.C. invite tenders for certain work in connection with sewage disposal.

✱ SEPTEMBER 15. — **Kensington.** — MAKING-UP ROADS.—The Kensington B.C. invite tenders for making-up two streets.

SEPTEMBER 17.—**Bude.**—ROADS —The Stratton and Bude U.D.C. invite tenders for road widening and improvement works (including about 1,300 superficial yards of pavement, with kerbing and channelling), in Bude. Specifications, etc., of the Council's Surveyor, Mr. J. Ellis, Council Offices, Bude, N. Cornwall. Deposit, £1 1s.

SEPTEMBER 29.—**Beddgelert.**—SEWERAGE WORKS.—The Glaslyn R.D.C. invite tenders for sewerage works at Beddeglert. Specification, etc., of the Engineers, Messrs. Herrington, Son, & Watney, Prudential-chambers, Lichfield-street, Wolverhampton, and 28, Victoria-street, Westminster, S.W. Deposit, £5 5s.

Public Appointments.

✱ SEPTEMBER 1.—ARCHITECTURAL ASSISTANT.—The Stoke-on-Trent Corporation invite applications for the above post. Commencing salary, £150 per annum.

✱ SEPTEMBER 6.—ASSISTANT INSTRUCTOR OF HANDICRAFT (WOODWORK).—The L.C.C. invite applications for the above post. Commencing salary, £80 per annum rising provisionally to £120.

Auction Sales.

✱ SEPTEMBER 2.—**Turnham Green.**—Messrs. Veryard & Yates will offer for sale by auction on the site, a quantity of timber and building material.

✱ SEPTEMBER 9.—**Wandsworth Common.**—Mr. H. W. Smith will offer for sale by auction, at No. 34, Belle Vue-road, the first portion of a builder's, decorator's and contractor's stock, plant, etc.

✱ SEPTEMBER 10. — **Hayes.** — Messrs. Fuller, Horsey, Sons, & Cassell will sell by auction at the Marble and Slate Works, Hayes, a quantity of marble, stone, and slate working machinery.

[Those with an asterisk (*) are advertised in this issue.]

THE LONDON SOCIETY:
TOWN AND CITY PLANNING.

A TOUR through the principal cities of Europe has just been completed by several prominent members of the American Civic Association, London being their last stop before leaving for home. During their stay here they visited Hampton Court at the invitation of the London Society, and, through the courtesy of the Office of Works, the galleries were specially opened to the party. The American visitors were afterwards entertained by the Society at the Mitre Hotel. Sir Aston Webb presided at dinner, and after the usual loyal toasts he briefly stated the objects of the London Society, and showed how, under careful guidance, it would become most useful to the local authorities. He complimented the Americans on their activities in civic matters, and said it was largely through their example that the London Society had formed itself.

Following him, the Secretary of the American Civic Association gave an account of their work in the United States and Canada. He thought that most people interested in city planning knew the name of Mr. Daniel Burnham, and that he had laid down a large scheme for the city of Baltimore, which the authorities had now commenced to carry out. In New York, too, the Art Commission had established its authority very completely, so that schemes for monuments or buildings of importance had to receive the approval of the Commission. He thought that in England, now that we have the Town Planning Act, such matters were better managed than in America. They in the States had gone ahead of us in matters of town planning, principally because they had so many new cities to lay out. We had to replan a great many of our old ones, which was a much more difficult matter. In conclusion, he expressed gratitude to the Press, and hoped they would continue to receive its unstinted support.

The Mayor of Chattanooga (Mr. T. C. Thompson) described the enormous strides that had been made by the United States since their rebirth some fifty years ago. One hundred and eighty-six cities were affiliated to the Association, and they were all actively working towards the better planning of their centres. In the course of his remarks he touched upon the Panama Exposition, and expressed the hope that if at all possible England would be represented.

Sir Robert Hunter dwelt upon an important item in city planning, namely, the open spaces. He thought the outskirts of London should be closely watched to prevent the accumulation of isolated building sites without any communal existence.

In conclusion, the American Consul-General (Mr. Griffiths) expressed the opinion that England had the most delightful climate and the worst weather of any country he ever knew! He was eloquent also on the desirability of securing the co-operation of women in civic movements, and stated that it was difficult to over-estimate the good influence they had had on such work in America, in spite of some of their delightful inconsistencies. In case anybody had never heard of an artistic American, he reminded the company of the fact that the second President of the Academy (Sir Benjamin West) was an American, and that it was Whistler who discovered the Thames.

FOREIGN AND COLONIAL.

College Buildings, Canterbury, New Zealand.

H.M. Trade Commissioner reports that, according to the local press, the Board of Governors of Canterbury College (N.Z.) have approved of the scheme for the extension of the college buildings at an estimated cost of £20,746. The work includes the provision of a library and storerooms for 20,000 books, a lecture theatre, a physics laboratory, hot-water heating for college block, etc. The name and address of the architects for the above-mentioned buildings may be obtained by manufacturers in the United Kingdom on application to the Commercial Intelligence Branch of the Board of Trade, 73, Basinghall-street, London, E.C.

Surveyors' Institution Examinations

MESSRS.

PARRY, BLAKE, & PARRY,

AND

B. W. ADKIN

HAVE for over twenty-two years conducted complete Courses of Preparation for these Examinations. The Courses may be taken either

in EVENING CLASSES,
by CORRESPONDENCE,
or by PERSONAL TUITION in the daytime.

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Monday, the 8th September next.

During the past nineteen years, out of the 143 prizes awarded at these Examinations, no less than 96 have been obtained by candidates who have taken these Courses.

The prizes obtained by pupils prepared by Messrs. Parry, Blake, & Parry and B. W. Adkin at this year's Examination (1913) were:—

The PENFOLD GOLD MEDAL for FIRST PLACE in the Final Examination.
„ PENFOLD SILVER MEDAL „ FIRST PLACE in the Intermediate Examination.
„ INSTITUTION PRIZE „ FIRST PLACE in the Intermediate Examination (Students).
„ DRIVER PRIZE „ FIRST PLACE in the Intermediate Examination (Non-Students).
„ BEADEL PRIZE „ FIRST PLACE in Agriculture.
„ QUANTITIES PRIZE „ FIRST PLACE in Quantities.
„ BUILDING PRIZE „ FIRST PLACE in Constructive and Working Drawings.
„ GALSWORTHY PRIZE „ FIRST PLACE in the Intermediate and Final Exams. taken together.

For many years past more than two-thirds of the successful candidates at these Examinations have been prepared by Messrs. Parry, Blake, & Parry and B. W. Adkin.

The ACTUAL TEACHING in these Courses of Preparation is done PERSONALLY by

Mr. RICHARD PARRY, Fellow of the Surveyors' Institution (by Examination), Associate Member of the Institution of Civil Engineers, Bachelor of Science (London University), Barrister-at-Law, Author of "Valuation Tables," and Joint Author of "The Law of Easements."

Mr. E. H. BLAKE, Fellow (by Examination) and Gold Medallist of the Surveyors' Institution, with Special Sanitary Science Diploma, Diploma of the Association of Municipal and County Engineers, Member of the Royal Sanitary Institute, and Fellow and Member of the Council of the Institute of Sanitary Engineers.

Mr. ALBERT E. PARRY, Fellow of the Surveyors' Institution (by Examination); and

Mr. B. W. ADKIN, Fellow of the Surveyors' Institution (by Examination), Life Member of the Royal Agricultural Society of England, Fellow of the Entomological Society, Life Member and Silver Medallist of the Royal English Arboricultural Society, Barrister-at-Law, and Author of "A Handbook of the Law Relating to Landlord and Tenant," "Copyhold and other Land Tenures of England," and "The Principles of Parochial Assessment."

For further particulars, or any information, apply to

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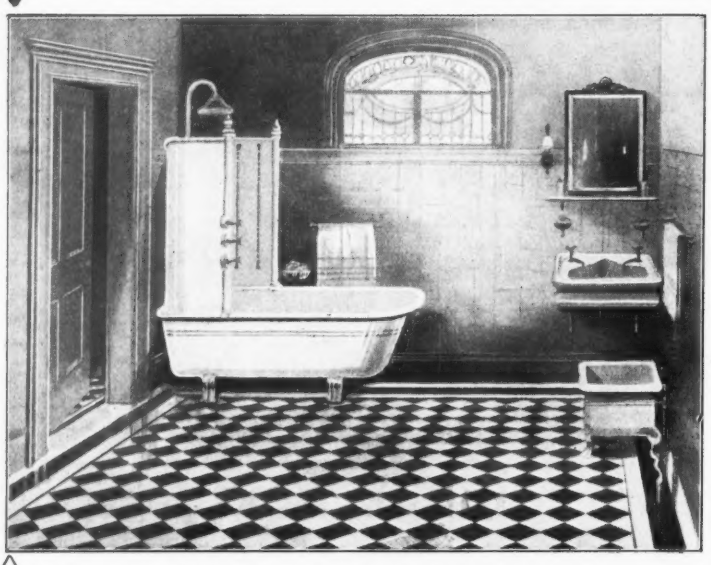

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Specify and use only brands which have passed the test of time.

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PRICES CURRENT OF MATERIALS.

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

Per 1000 Alongside, in River.	£	s.	d.
Best Stocks	1	16	0
Picked Stocks for Facings	2	10	0

Per 1000, Delivered at Railway Depôt.

	£	s.	d.		£	s.	d.
Flettons	1	14	0	Best Blue Pressed Staffordshire	3	15	0
Best Fareham Red	3	12	0	Do. Bullnose	4	0	0
Best Red Pressed Ruabon Facing	5	0	0	Best Stourbridge Fire Bricks	4	0	0
GLAZED BRICKS—							
Best White, Ivory, and Salt Glaz'd Str'tch'rs	12	7	6	Double Headers	14	17	6
Headers	11	17	6	One Side and two Ends	18	17	6
Quoins, Bullnose and 4½ in. Flats	15	17	6	Two Sides and one End	19	17	6
D'ble Str'tch'rs	17	17	6	Splays and Squints	17	7	6

Second Quality £1 10s. per 1000 less than best.

	s.	d.	
Thames and Pit Sand	7	0	per yard, delivered.
Thames Ballast	5	9	" "
Best Portland Cement	36	0	per ton, "
Best Ground Blue Lias Lime	19	0	" "

NOTE—The cement or lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime ..... 14s. 0d. per yard delivered.
Stourbridge Fireclay in sacks 27s. 0d. per ton at rly. dpt.

STONE.

Per Ft. Cube.

	s.	d.
BATH STONE—Delivered on road waggons, Paddington Depôt	1	7½
Do. do. Delivered on road waggons, Nine Elms Depôt	1	9½

PORTLAND STONE (20 ft. average)—

	s.	d.
Brown Whitbed, Delivered on road waggons, Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2	4½
White Basebed, Delivered on road waggons, Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2	6½

Per Ft. Cube, Delivered at Railway Depôt.

	s.	d.		s.	d.
Ancaster in blocks	1	10	Closeburn Red Freestone	2	0
Beer in blocks	1	6	Red Mansfield Freestone	2	4
Greenshill in blocks	1	10	Talacre & Gwespyr Stone	2	4
Darley Dale in blocks	2	4			
Red Corsehill in blocks	2	3			

YORK STONE—*Robin Hood Quality.*

Per Ft. Cube, Delivered at Railway Depôt.	s.	d.
Scappled random blocks	2	10

Per Ft. Super., Delivered at Railway Depôt.

6 in. sawn two sides landings to sizes (under 40 ft. super.)	2	8
6 in. rubbed two sides ditto, ditto	2	6
3 in. sawn two sides slabs (random sizes)	0	11½
2 in. to 2½ in. sawn one side slabs (random sizes)	0	7
1½ in. to 2 in. ditto, ditto	0	6

HARD YORK—

Per Ft. Cube, Delivered at Railway Depôt.

Scappled random blocks	3	0

Per Ft. Super., Delivered at Railway Depôt.

6 in. sawn two sides landing to sizes (under 40 ft. super.)	2	8
6 in. rubbed two sides ditto	3	0
3 in. sawn two sides slabs (random sizes)	1	2
2 in. self-faced random flags	0	5

SLATES

Per 1000 of 1200 at Railway Depôt.

In. In.	£	s.	d.	In. In.	£	s.	d.
20 x 10 best blue Bangor	13	2	6	20 x 10 best Eureka unfading green	15	17	6
20 x 12 ditto	13	17	6	20 x 12 ditto	18	7	6
20 x 10 1st q'lity ditto	13	0	0	18 x 10 ditto	13	5	0
20 x 12 ditto	13	15	0	16 x 8 ditto	10	5	0
16 x 8 ditto	7	5	0	20 x 10 permanent green	11	12	6
22 x 10 best blue Portmadoc	12	12	6	18 x 10 ditto	9	12	6
16 x 8 ditto	6	12	6	16 x 8 ditto	6	12	6

TILES.

At Railway Depôt.

	s.	d.		s.	d.
Best plain red roofing (per 1000)	42	0	Best "Hartshill" brand, plain sand-faced (per 1000)	45	0
Hip and Valley (per doz.)	3	7	Do. pressed (per 1000)	42	6
Best Broseley (per 1000)	50	0	Do. Ornamental (per 1000)	47	6
Do. Ornamental (per 1000)	52	6	Hip (per doz.)	4	0
Hip and Valley (per doz.)	4	0	Valley (per doz)	3	6
Best Ruabon red, brown, or brindle (Edw'ds) (pr 1000)	57	6	Staffords. (Hanley) Reds or Brindled (per 1000)	42	6
Do. Ornamental (per 1000)	60	0	Hand-made sand-faced (per 1000)	45	0
Hip (per doz.)	4	0	Hip (per doz.)	4	0
Valley (per doz)	3	0	Valley (per doz)	3	6

WOOD.

BUILDING WOOD.	At per standard.						
	£	s.	d.		£	s.	d.
Deals, best 3 in. by 11 in. and 4 in. by 9 in. and 11 in.	15	0	0	..	16	10	0
Deals best 3 in. by 9 in.	15	0	0	..	16	0	0
Battens: best 2½ in. by 7 in. and 8 in., and 3 in. by 7 in. and 8 in.	12	10	0	..	13	10	0
Battens: best 2½ by 6 and 3 by 6	0	10	0		less than 7 in. and 8 in.		
Deals: seconds	1	0	0		less than best		
Battens: seconds	0	10	0		"		
2 in. by 4 in. and 2 in. by 6 in.	11	10	0	..	12	10	0
2 in. by 4½ in. and 2 in. by 5 in.	10	10	0	..	11	10	0
Foreign Sawn Boards—							
1 in. and 1¼ in. by 7 in.	0	10	0		more than battens.		
¾ in.	1	0	0		"		
Fir timber: best middling Danzig or Memel (average specification)	At per load of 50 ft.						
	5	0	0	..	6	5	0
Seconds	4	10	0	..	5	0	0
Small timber (8 in. to 10 in.)	3	17	6	..	4	0	0
Small timber (6 in. to 8 in.)	3	5	0	..	3	10	0
Swedish balks	2	12	6	..	3	0	0
Pitch-pine timber (30 ft. average)	6	0	0	..	7	0	0

JOINERS' WOOD.	At per standard.						
	£	s.	d.		£	s.	d.
White Sea: first yellow deals, 3 in. by 11 in.	26	0	0	..	27	0	0
3 in. by 9 in.	24	0	0	..	25	0	0
Battens, 2½ in. and 3 in. by 7 in.	18	10	0	..	19	10	0
Second yellow deals, 3 in. by 11 in.	21	10	0	..	22	10	0
" " 3 in. by 9 in.	20	0	0	..	21	0	0
Battens, 2½ in. and 3 in. by 7 in.	15	0	0	..	16	0	0
Third yellow deals, 3 in. by 11 in. and 9 in.	16	0	0	..	17	0	0
Battens, 2½ in. and 3 in. by 7 in.	14	0	0	..	15	0	0
Petersburg: first yellow deals, 3 in. by 11 in.	23	0	0	..	24	0	0
Do. 3 in. by 9 in.	20	0	0	..	21	0	0
Battens	15	0	0	..	16	0	0
Second yellow deals, 3 in. by 11 in.	17	10	0	..	18	10	0
Do. 3 in. by 9 in.	16	0	0	..	17	0	0
Battens	12	10	0	..	13	10	0
Third yellow deals, 3 in. by 11 in.	14	0	0	..	15	0	0
Do. 3 in. by 9 in.	13	10	0	..	14	10	0
Battens	11	10	0	..	12	10	0
White Sea and Petersburg—First white deals, 3 in. by 11 in.	16	10	0	..	17	10	0
First white deals, 3 in. by 9 in.	14	10	0	..	15	10	0
Battens	13	0	0	..	13	10	0
Second white deals, 3 in. by 11 in.	14	10	0	..	15	10	0
Second white deals, 3 in. by 9 in.	13	0	0	..	14	0	0
Battens	12	0	0	..	12	10	0
Pitch-pine: deals	25	0	0	..	26	10	0
Under 2 in. thick extra	0	10	0	..	1	0	0
Columbian or Oregon Pine, best quality	23	10	0	..	26	0	0
Yellow Pine — First, regular sizes	50	0	0		upwards.		
Oddments	35	0	0		"		
Seconds, regular sizes	36	0	0		"		
Oddments	31	0	0		"		
Kauri Pine — Planks per ft. cube	0	5	6	..	0	6	6
Danzig and Stettin Oak Logs—Large, per ft. cube	0	3	0	..	0	3	9
Small " "	0	2	6	..	0	3	0
Wainscot Oak Logs, per ft. cube	0	7	6	..	0	9	0
Dry Wainscot Oak, per ft. super. as inch	0	0	10	..	0	1	2
¾ in. do. do.	0	0	9	..	0	1	0
Dry Mahogany—Honduras, Tabasco, per ft. super, as inch	0	0	10	..	0	1	3
Selected, Figury, per ft. super. as inch	0	1	6	..	0	2	6
Cuba Mahogany	0	1	4	..	0	2	6
					upwards.		
Dry Walnut, American, per ft. super, as inch	0	0	10	..	0	1	2
French, "Italian," Walnut	0	0	10	..	0	1	4
Teak, per load (Rangoon or Moulmein)	20	10	0	..	26	0	0
Do., do. (Java)	19	0	0	..	22	10	0
American Whitewood planks, per ft. cube	0	5	6	..	0	6	6
Prepared Flooring, etc.—	Per square.						
1 in. by 7 in. yellow, planed and shot	0	14	6	..	0	18	0
1 in. by 7 in. yellow, planed and matched	0	14	9	..	0	18	0
1¼ in. by 7 in. yellow, planed and matched	0	17	6	..	1	3	0
1 in. by 7 in. white, planed and shot	0	14	0	..	0	16	0
1 in. by 7 in. white, planed and matched	0	14	3	..	0	16	6
1¼ in. by 7 in. white, planed and matched	0	16	6	..	0	8	6
¾ in. by 7 in. yellow, matched and beaded or V-jointed boards	0	12	6	..	0	15	0
1 in. by 7 in. " "	0	15	0	..	0	18	6
¾ in. by 7 in. white " "	0	12	0	..	0	14	0
1 in. by 7 in. " "	0	14	6	..	0	16	6

6 in. at 6d. to 9d. per square less than 7 in

JOISTS, GIRDERS, &c.

	In London or delivered Railway Vans, per ton.						
	£	s.	d.		£	s.	d.
Rolled Steel Joists, ordinary sections	9	0	0	..	10	0	0
Compound Girders, ordinary sections	11	0	0	..	12	0	0

JOISTS, GIRDERS, &c. (*continued*).

	In London or delivered Railway Vans, per ton.						
	£	s.	d.		£	s.	d.
Steel Compound Stanchions	12	0	0	..	13	0	0
Angles, Tees, and Channels, ordinary sections	11	0	0	..	12	0	0
Flitch Plates	11	0	0	..	12	0	0
Cast Iron Columns & Stanchions, including ordinary patterns	8	10	0	..	9	0	0

METALS.

	Per ton, in London.						
IRON—	£	s.	d.		£	s.	d.
Common Bars	9	0	0	..	9	10	0
Staffordshire Crown Bars, good merchant quality	6	5	0	..	9	15	0
Staffordshire "Marked Bars"	11	0	0	..	—		
Mild Steel Bars	9	5	0	..	9	15	0
Hoop Iron, basis price	10	0	0	..	—		
" " Galvanised	17	10	0	..	—		
(* And upwards, according to size and gauge.)							
Sheet Iron Black—							
Ordinary sizes to 20 g.	10	5	0	..	—		
" " 24 g.	11	5	0	..	—		
" " 26 g.	12	15	0	..	—		
Sheet Iron, Galvanised, flat, ordinary quality—							
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15	10	0	..	—		
Ordinary sizes to 22 g. and 24 g.	16	0	0	..	—		
Ordinary sizes to 26 g.	17	0	0	..	—		
Sheet Iron, Galvanised, flat, best quality—							
Ordinary sizes to 20 g.	18	10	0	..	—		
" " 22 g. and 24 g.	19	0	0	..	—		
Ordinary sizes to 26 g.	20	10	0	..	—		
Galvanised Corrugated Sheets—							
Ordinary sizes, 6 ft. to 8 ft. 20 g.	15	0	0	..	—		
Ordinary sizes, 22 g. and 24 g.	15	5	0	..	—		
Ordinary sizes, 26 g.	16	15	0	..	—		
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	12	10	0	..	—		
Best Soft Steel Sheets, 22 g. & 24 g.	13	10	0	..	—		
Best Soft Steel Sheets, 26 g.	15	10	0	..	—		
Cut Nails, 3 in. to 6 in.	11	0	0	..	11	10	0
(Under 3 in., usual trade extras.)							

LEAD, &c.

	Delivered in London.						
	£	s.	d.		£	s.	d.
LEAD—Sheet, English, 4 lb. and up	24	5	0	..	—		
Pipe in coils	24	15	0	..	—		
Soil pipe	27	15	0	..	—		
Compo pipe	27	15	0	..	—		
ZINC—Sheet—	In casks of 10 cwt.						
Vielle Montagne	24	5	0	..	—		
Silesian	28	0	0	..	—		
Zinc, in bundles, 1s. per cwt. extra.							
COPPER—							
Strong Sheet per lb.	0	1	1	..	—		
Thin " "	0	1	2	..	—		
Copper nails "	0	1	0	..	—		
Copper wire "	0	1	0	..	—		
BRASS—							
Strong Sheet "	0	1	0	..	—		
Thin "	0	1	1	..	—		
TIN—English Ingots "	0	1	11	..	—		
SOLDER—Plumbers' "	0	0	10	..	—		
Tinmen's "	0	1	1	..	—		
Blowpipe "	0	1	3	..	—		

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.*

Per Ft. Delivered.

15 oz. thirds	2½d.	26 oz. fourths	4d.
" fourths	2d.	32 oz. thirds	5½d.
21 oz. thirds	3½d.	" fourths	4½d.
" fourths	3½d.	Fluted Sheet, 15 oz.	3d.
26 oz. thirds	4½d.	" 21 oz.	4d.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.*

Per Ft. Delivered.

¼ Rolled plate	2½d.	Figured Rolled, Oxford Rolled, Oceanic, Arctic, Muffled, and Rolled Cathedral, white	3½d.
⅛ Rough rolled and rough cast plate	2¾d.	Ditto, tinted	5d.
¼ Rough rolled and rough cast plate	3d.		

* Not less than two crates.

OILS, &c.

		£	s.	d.
Raw Linseed Oil in pipes	per gallon	0	2	4
" " " in barrels	"	0	2	5
" " " in drums	"	0	2	7
Boiled " " in barrels	"	0	2	7
" " " in drums	"	0	2	10
Turpentine in barrels	"	0	2	5
" in drums	"	0	2	7
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)		30	15	0
Red Lead, Dry	per ton	28	0	0
Best Linseed Oil Putty	per cwt.	0	10	0
Stockholm Tar	per barrel	1	12	0

VARNISHES, &c.

	Per gallon.		
	£	s.	d.
Fine Pale Oak Varnish	0	8	0
Pale Copal Oak	0	10	6
Superfine Pale Elastic Oak	0	12	6
Fine Extra Hard Church Oak	0	10	0
Superfine Hard-drying Oak, for seats of Churches	0	14	6
Fine Elastic Carriage	0	12	9
Superfine Pale Elastic Carriage	0	16	0
Fine Pale Maple	0	10	0
Finest Pale Durable Copal	0	18	6
Extra Pale French Oil	1	1	0
Eggshell Flating Varnish	0	18	0
White Pale Enamel	1	4	0
Extra Pale Paper	0	12	0
Best Japan Gold Size	0	10	0
Best Black Japan	0	16	0
Oak and Mahogany Stain	0	9	0
Brunswick Black	0	8	0
Berlin Black	0	16	0
Knotting	0	10	6
French and Brush Polish	0	10	0

TO CORRESPONDENTS.

NOTE.—All communications with respect to literary and artistic matters should be addressed to "THE EDITOR" (and not to any person by name); those relating to advertisements and other exclusively business matters should be addressed to "THE PUBLISHER," and *not* to the Editor.

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TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than 6 p.m. on Wednesday.* [N.B.—We cannot publish Tenders unless authenticated either by the architect or the building owner; and we cannot publish announcements of Tenders accepted unless the amount of the Tender is stated, nor any list in which the lowest Tender is under 100*l.* unless in some exceptional cases and for special reasons.]

* Denotes *accepted.* † Denotes *provisionally accepted.*

BARHAM.—Bridge for the Bridge (Kent) Rural District Council:—

Knight, Barham* £159 15

BOURNEMOUTH.—For alterations and additions to Cotford and Worcester, West Cliff, Bournemouth, for Mr. W. H. Saunders. Mr. Chas. H. Goater, architect, Parkstone, Dorset:—

J. Lawf rd	£284 12 6	W. E. Jones & Son*	£248 10 0
F. Hoare & Son	273 18 6		

BROMSGROVE.—Baths, etc., at infirmary, for Board of Guardians:—

H. Jennings* £129 4

COWES (Isle of Wight).—For erection of a bakery and stores, for Cowes Co-operative Society, Ltd. Mr. J. W. Bessant, architect and surveyor, Cowes, I.W.:—

T. Westbrook & Son	£875	W. H. Brading & Son, East Cowes*	£860
H. E. Day	866		
A. P. Williams	864		

[Protective estimate, £890.]

EAST SUFFOLK.—The East Suffolk Education Committee have accepted the following tenders:—

Chediston New Council School.

G. A. Kenny, Ipswich £788

Buxhall Mistress's House.

A. J. Gibbons, Crowfield 365

Martlesham Council School Enlargement.

Bilby Bros., Melton 470

Stoke Ash New Council School.

G. A. Kenny, Ipswich 808

Holbrook Special Subjects Centre.

A. J. Gibbons, Crowfield 409

FLINT.—For the erection of a new bakehouse, with storerooms and stables, for Flint and Oakenholt Co-operative Society, Ltd. Mr. F. A. Roberts, M.S.A., architect, Earl-chambers, Mold:—

H. G. Huxley	£1,740	M. S. Rogers & Sons	£1,682
G. H. Wright	1,731	A. B. Lloyd, Flint*	1,630
A. Jones	1,700		

FOLESHILL.—Alterations at the workhouse, for Board of Guardians:—

Gibson, Bedworth* £767

FULBOURN.—For outside painting of the asylum, for the Visitors to the Asylum. Mr. A. P. MacAlister, F.R.I.B.A., architect, Cambridge. Quantities by Messrs. MacAlister & Skipper, Cambridge:—

J. J. Richards	£1,255 17 1
Underwood Bros.	933 16 10
E. C. Northfield	834 0 10
Coulson & Lofts	827 0 0
F. R. Leach & Sons	822 13 0
A. Negus & Sons	775 0 0
Jones & Bailey	763 13 8
C. Scott	648 16 0
Bennett & Blowers, Cambridge*	593 14 4

GORNAL.—Alterations to Dibdale House, for the Dudley Board of Guardians:—

A. J. Crump & Co., Dudley* £1,448

HORSHAM.—New infants' school and additions to All Saints' School, for West Sussex Education Committee:—

Rowland Bros., Horsham* £2,749

LINCOLN.—Building new laundry at workhouse, for Board of Guardians:—

W. Wright & Son	£1,850 0	C. A. Fairchild	£1,700 0
Dowse & Son	1,800 0	Thornhill	1,633 0
F. Horton	1,785 0	W. Newton	1,615 17
S. & R. Horton	1,7?2 0	Close*	1,563 11
Lincoln Co-operative Society	1,750 0		

RUDGWICK.—Alterations and additions to Council school, for West Sussex Education Committee:—

Reeves & Port, Rudgwick* £405 10

SOUTHEND-ON-SEA.—Furniture for new nurses' home at Sanatorium, for Town Council:—

F. J. Baxter, Kingsland-road, N.E.* £256 14

SOUTHEND-ON-SEA.—Access doors, etc., for sewage works, for Corporation:—

Poultons & Timmis, Ltd., Reading* £1,231 3 6

WEST SUSSEX.—Tar-paving school playgrounds, for West Sussex Education Committee:—

J. Wainwright & Co., Ltd., London*:—Barnham School, £83 16s. 6d.; Billinghurst School, £1 8; Horsham Dene School, £43 2s. 11d.

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